

Room 20.
+ 12

THE IRON AGE

VOL. LXXXIV.

JULY-DECEMBER, 1909

NEW YORK:
DAVID WILLIAMS COMPANY
14-16 Park Place.



INDEX.

Illustrated articles indicated by *.

A.

A. & B. Stove Co., Aug. 5 p 452
 Ablett, C. A.:
 Electrically Driven Reversing Rolling Mills, Nov. 4 p 1392
 Abrasive Material Production in 1908, Sept. 9 p 791
 Abuse of American Export Trade, Dec. 16 p 1840
 Accidents:
 Compensation for, Dec. 23 p 1876
 Compensation for Industrial, Dec. 2 p 1726
 Compensation to Workmen for Injuries, Sept. 30 p 994
 Pennsylvania Industrial, Nov. 11 p 1497
 Prevention in a New Mexican Colliery, July 15 p 199
 Prevention in Foundries,* July 22 p 252
 System Necessary to Reduce Costs, Sept. 9 p 783
 When They Usually Occur, Sept. 30 p 989
 Workmen's Compensation, Aug. 5 p 415
 Accounting, Cost, in Implement and Vehicle Trade, Nov. 11 p 1534
 Accounting, Hardware, July 8 p 162
 Accumulation of Dead Stock, Sept. 30 p 1036
 Accumulation of Material Supplies, Oct. 14 p 1167
 Acetylene Mine Lamp, Baldwin,* Nov. 25 p 1690
 Acheson Graphite, Unctuous,* July 15 p 198
 Acme Screw Machine, New,* Dec. 2 p 1702
 Adams-Bagnall Arc Lamp,* Oct. 7 p 1077
 Addenbrooke, G. L.:
 Public Supply of Electric Power in Great Britain, Aug. 19 p 577
 Address Slips, Gummed, for Use on Envelopes,* Aug. 5 p 451
 Adgate, Frederick W.:
 Concrete Shafts at Lake Iron Mines,* Aug. 26 p 622
 Adirondack Ore Deposit, Great,* Oct. 14 p 1143
 Adirondack Ore Deposit History, Oct. 21 p 1248
 Advancing Machine Tool Prices by Monthly Steps, Oct. 14 p 1166
 Advertisers, Cultivating Trade with, Nov. 18 p 1589
 Advertising Hardware:
 Advertising Contest, Michigan Hardware Association's, Oct. 21 p 1279
 Advertising in the Air, Aug. 26 p 664
 Bard & Cheney's Bulletin, Sept. 30 p 1042
 Blotters as an Advertising Medium,* Sept. 9 p 817
 Brownsville Hardware Company's Emblem,* July 8 p 156
 Christmas Checks, Small,* Nov. 11 p 1527
 Exhibiting Goods on Store Doors,* Sept. 9 p 812
 Fall Business in Stoves and Ranges, Working Up,* Oct. 7 p 1122
 Fishing Tackle Booklet, F. D. Foot's,* Sept. 30 p 1039
 Getting Next to the Boys and Girls,* Nov. 4 p 1445
 Hardware and Paint Hustler, Sept. 30 p 1042
 Holiday Trade in the Hardware Store, Oct. 7 p 1120
 Holiday Goods Booklets for Hardware Merchants,* Nov. 25 p 1681

Advertising Hardware:
 Industrial Parade Float,* Sept. 30 p 1038
 Labor Day Window Advertising,* Aug. 26 p 664
 Motto, Dallas A,* July 8 p 155
 Newspaper and Leaflet Advertising,* Sept. 30 p 1034
 Parade Float of a Kentucky House,* Sept. 23 p 960
 Simmons Advertising Service, Nov. 4 p 1453
 Special Sale of Enameled Ware &c.,* July 29 p 367
 Spiro Hardware Company's Trade-mark,* Aug. 12 p 523
 Store Papers and Bulletins for Attracting Attention,* Sept. 30 p 1042
 Aeromobile, a Heavier-Than-Air Machine,* Aug. 26 p 612
 African Trade Conditions, South, Sept. 16 p 844
 Air Compressors, Mesta,* July 15 p 175
 Air Filters for Machinery, Moeller,* Nov. 4 p 1402
 Air Heaters, Improving Heat Transmission in,* Aug. 26 p 628
 Airship Factory, Aug. 12 p 508
 Alarm Gauge, Standard Pressure,* Sept. 9 p 774
 Alcohol Engines, Report on, Nov. 18 p 1564
 Alcohol Gas Stove Chafing Dish,* Nov. 25 p 1690
 Alcohol, Stoves,* Nov. 18 p 1613
 Alcohol Stoves, Universal,* July 8 p 164
 Algoma Steel Company Sells Its Mesaba Mine, Aug. 26 p 639
 Allan, Andrew, Jr.:
 Copper-Tin-Lead Alloy Patents, July 1 p 32
 Allegheny County's Output in 1908, Sept. 2 p 705
 Allegheny County's Position in the Steel Trade of 1908, Sept. 9 p 782
 Allegheny Steel Company Buys Reliance Tube Company, July 8 p 123
 Alliance Cranes, Oct. 7 p 1088
 Allis-Chalmers Company:
 Annual Report, Oct. 21 p 1252
 Steam Turbine Industry, July 15 p 195
 Alloys:
 Aluminum-Copper-Tin and Copper-Zinc, Nov. 4 p 1395
 Physical Properties of Iron-Copper,* Nov. 11 p 1476
 Steels for Motor Car Construction, July 8 p 95
 Tantalum, July 22 p 268
 Alluring Field of Industry, Aug. 12 p 487
 Aluminum Castings Company, Aug. 19 p 559
 Aluminum Coated Sheets in a Coal Tipple, Nov. 4 p 1410
 Aluminum Company of America, Dec. 2 p 1734
 Aluminum-Copper-Tin and Copper-Zinc Alloys, Nov. 4 p 1395
 Aluminum Enameled Ware:
 Ermine, Oct. 14 p 1213
 Sterling, Sept. 23 p 970
 Amalgamated Scale, Western Bar Iron Association Signs, July 1 p 50
 American Blower Company:
 Contrast in Mine Fans, Nov. 25 p 1674
 Sirococo Centrifugal Blower Patent Sustained, Dec. 2 p 1721
 American Boiler Manufacturers' Association, Aug. 19 p 546

American Bridge Company:
 Structural Plant Enlargement in the Chicago District, Oct. 21 p 1265
 American Car & Foundry Company:
 Annual Report, July 8 p 132
 Improvements, Nov. 11 p 1490
 Purchase of Charcoal Pig Iron, Dec. 2 p 1700
 American Electrochemical Society:
 Meeting, Oct. 14 p 1176
 Papers, Oct. 21 p 1244
 American Foundrymen's Association:
 Oct. 21 p 1223; Dec. 2 p 1700; Dec. 23 p 1875
 American Institute of Chemical Engineers' Meeting, July 8 p 127; Nov. 18 p 1596; Dec. 16 p 1844
 American Institute of Electrical Engineers:
 Rolling Mill Discussions, July 8 p 128
 American Iron & Steel Mfg. Company:
 Dodge Coal Grading and Handling Equipment,* Sept. 9 p 768
 American Lead Company:
 New Lead Pipe Plant at Pittsburgh, Aug. 26 p 627
 American Locomotive Company:
 Annual Report, Sept. 16 p 847
 New Note Issue, Sept. 2 p 708
 American Oxhydric Company:
 Process of Cutting and Welding Metals,* Nov. 11 p 1467
 American Permanent Sample Exhibition at Berlin, Aug. 26 p 653
 American Radiator Company:
 Dec. 2 p 1709
 American Refractories Company:
 Austria-American Magnesite Works, Oct. 21 p 1249
 American Rolling Mill Company, Dec. 9 p 1789
 American Sensitive Radial Drills,* Sept. 30 p 983
 American Sheet & Tin Plate Company:
 Operations, Sept. 9 p 802
 Strike in Mills, July 8 p 146
 To Expend \$4,500,000 at Gary, Ind., Dec. 16 p 1843
 American Society for Testing Materials:
 July 8 p 96
 Specifications for Shapes, Plates and Rails,* July 1 p 26
 American Society of Engineering Contractors, Sept. 2 p 701
 American Society of Mechanical Engineers, Annual Meeting.
 American Steam Gauge & Valve Mfg. Company:
 Hydraulagraph, The,* Sept. 16 p 836
 American Steel & Wire Company:
 New Blast Furnace at Cleveland, Dec. 23 p 1910
 New Plant Near Ensley, Ala., Nov. 18 p 1590
 Pension List, July 8 p 151
 Power for New Birmingham Wire Plant, Nov. 25 p 1650
 American Steel Foundries, Annual Report, Nov. 18 p 1572
 Ammonia from Coke Oven Gas, Direct Production of,* Dec. 9 p 1764
 Ammunition and Guns, A Few Hints on the Care, Sept. 2 p 738
 Amsler Hot Blast Stove,* Nov. 25 p 1643
 Anderson Pressure Reducing Valve,* Aug. 19 p 553
 Annealing and Rolling Speed, Dec. 2 p 1701
 Anniversary of Basic Bessemer Steel in Germany, Thirtieth, Oct. 21 p 1252
 Antitrust Law, Sherman, Dec. 23 p 1895
 Anvil Making, Hay-Budden New Process in, Sept. 30 p 1044

- Apple Slicer, Rapid,* Sept. 2 p 750
 Apprentice Plan in Chicago, School-Shop, Oct. 28 p 1319
 Argentine Exposition, Free Space at, Nov. 18 p 1574
 Armor Bids, Battleship and, Aug. 26 p 632
 Art Crafting in Metal,* Aug. 5 p 448
 Ashes, Value of Coal in Terms of the,* Nov. 4 p 1401
 Asia, Railroad Building in, Sept. 2 p 694
 A. S. M. E. Standard Taps, Dies and Screw Plates, Sept. 2 p 748
 Assistant Buyer, Sullivan System's, Oct. 14 p 1212
 Associations, Hardware:
 American Hardware Manufacturers' Association, July 29 p 365; Sept. 9 p 813; Sept. 16 p 887; Sept. 23 p 960; Oct. 14 p 1207; Oct. 21 p 1282*
 Arkansas Retail Hardware Association,* July 1 p 67; Sept. 23 p 966; Nov. 11 p 1530
 Buffalo Retail Hardware Merchants' Association, Sept. 9 p 811
 Carolinas Retail Hardware Association, July 8 p 162; July 15 p 231
 Chicago Retail Hardwaremen's Picnic, July 22 p 300
 Florida Retail Hardware Association, Aug. 19 p 590; Oct. 7 p 1123; Oct. 28 p 1355
 Iowa Retail Hardware Association, Sept. 30 p 1033
 Kentucky Retail Hardware Association, Sept. 30 p 1033
 Michigan Retail Hardware Association, July 22 p 307; Aug. 19 p 590*; Oct. 21 p 1279
 Minnesota Retail Hardware Association, Nov. 25 p 1688
 Mississippi Retail Hardware Association, Nov. 25 p 1688
 National Hardware Association, Sept. 9 p 813; Sept. 16 p 887; Sept. 23 p 960; Oct. 14 p 1207; Oct. 21 p 1282*
 New England Hardware Dealers' Association, Outing, July 22 p 303
 New England Iron and Hardware Association, Sept. 9 p 815; Sept. 23 p 960
 New York State Association of Hardware Jobbers, Sept. 30 p 1033
 New York State Retail Hardware Association, Nov. 11 p 1530; Nov. 25 p 1688
 North Dakota Retail Hardware Association, Nov. 11 p 1530
 Ohio Hardware Association, Sept. 16 p 886
 Ontario Retail Hardware and Stove Association, Sept. 9 p 815
 Pennsylvania Retail Hardware Association, Sept. 30 p 1033
 Pottery, Glass and Brass Salesmen's Association of America, Nov. 25 p 1688
 Tennessee Retail Hardware Association,* Sept. 2 p 747
 Wisconsin Retail Hardware Association, Nov. 11 p 1530
 Aston and Burgess:
 Physical Properties of Iron-Copper Alloys,* Nov. 11 p 1476
 Atkins A A A Car Mover,* Sept. 23 p 917
 Atlas Bench Press, New Style,* Dec. 2 p 1717
 Atlas Car & Mfg. Company's Orders,* Sept. 9 p 786
 Auchy, George:
 Calculation of Quality Figures, Aug. 12 p 488
 Quality Figures in Vanadium Steels, July 29 p 339
 Auger Bits and Chisels, Moving Exhibits of,* Nov. 18 p 1608
 Auger Bit Stop, Anti-friction,* Nov. 25 p 1689
 Aurola Flaming Arc Lamp,* July 22 p 250
 Aurora Upright Drill,* Nov. 18 p 1562
 Australia:
 American Firearms Factory in, Sept. 23 p 911
 Hardware and Ironmongery in, Nov. 4 p 1449
 Pratt & Whitney Company's Contract, July 29 p 354
 Vessel and Railroad Building, July 15 p 191
 Austria-American Magnesite Works, Oct. 21 p 1249
 Auto Engine Testing, Stevens-Duryea,* Sept. 23 p 903
 Autogenous Welding Equipment, New,* July 15 p 188
 Automatic Kitchen, A. A.,* July 8 p 164
 Automobile:
 Accelerated Test of Road Wear, July 15 p 186
 And Accessories, Aug. 26 p 663
 Franklin 1910, Dec. 9 p 1779
 Industry Affecting Wages, Oct. 7 p 1083
 Invasion of Eastern Labor Fields, Dec. 2 p 1727
 Kits, Reamer Set No. 30,* Nov. 18 p 1614
 Malleable Castings for Parts, Dec. 9 p 1783
 Output for 1910, July 8 p 125
 Prices May Be Higher, Nov. 11 p 1499
 Steel Mats,* Sept. 2 p 751
 Avery & Sons, B. F., July 15 p 182
 Avery Company's Large Additions, Dec. 23 p 1878
 Avery Engine, Original, Sept. 30 p 1006
 Axle Failure, Interesting,* July 8 p 123
 B.
 Bag Holder, B. & L., Aug. 5 p 453
 Bailey Patent Furnace, Nov. 18 p 1555
 Baird Tumbling Barrel,* July 15 p 15
 Baker Cylinder Boring Machine,* Dec. 2 p 1707
 Baker, James H.:
 Treated Steel for High Service,* Nov. 25 p 1632
 Balance Machine, Norton Running,* Dec. 16 p 1836
 Balance of Revolving Parts, Running, Nov. 18 p 1569
 Balance of Trade, September, Oct. 28 p 1326
 Baldwin Locomotive Works:
 Atchison Locomotive, Nov. 4 p 1430
 Heat Treatment of Spring Steel,* Oct. 7 p 1070
 Huge Locomotives, July 22 p 262
 Incorporated, July 1 p 37
 Ball & Wood Company:
 Rateau-Smoot Exhaust Steam Turbo-Generator Contracts, Nov. 25 p 1665
 Ball-Bearing Universal Joint, Improved,* Aug. 19 p 554
 Ball, Tea or Coffee, Screw Rim,* Oct. 7 p 1133
 Balls, Refuse Steel, July 22 p 287
 Baltimore Contract for Fire Protection, July 1 p 33
 Banquets, Trade, Nov. 25 p 1646
 Barb Wire, Early History of, Sept. 16 p 889
 Barb Wire, Two Point, American Glidden, Nov. 18 p 1611
 Barium and Sulphur in Fluorspar,* Aug. 5 p 392
 Barn Door Hanger and Rail, Lane's Tubular,* Nov. 4 p 1458
 Barn Door Hanger, Wagner Leader,* Sept. 9 p 821
 Barnes & Miller Hardware Company's Loose Leaf Catalogue, Nov. 4 p 1455
 Barnes All-Geared Drill,* Oct. 28 p 1317
 Barnes Heavy Duty Gang Drill,* July 8 p 112
 Barnes Horizontal Radial Drill,* Dec. 23 p 1889
 Barrel, Baird Tumbling,* July 1 p 15
 Barrow, Garden, New Queen,* Aug. 12 p 526
 Bars, Rail Carbon Steel,* Dec. 16 p 1823
 Bars, Report on Cast Iron Test, Dec. 30 p 1934
 Baseball Mask, Mascot Electric Welded,* Aug. 26 p 672
 Basic Bessemer Steel in Germany, Thirtieth Anniversary of, Oct. 21 p 1252
 Basic Steel Company, Dec. 2 p 1705
 Bath Duplex Internal Grinding Machine,* Sept. 30 p 979
 Battle Creek Wire Fence Machine,* Dec. 9 p 1777
 Battleship and Armor Bids, Aug. 26 p 632
 Battleship South Carolina, Sept. 2 p 733
 Baumgarten, A. F.:
 Specifications for Light Rails, Sept. 9 p 784
 Bay City, Mich., Charcoal Furnace Projected, Sept. 16 p 841
 Beader, Gutter, Adjustable,* Nov. 18 p 1614
 Beaman & Smith Standard Boring and Milling Machine,* Dec. 30 p 1932
 Beater, Egg, Whipit,* Oct. 7 p 1133
 Belknap, Morris B.:
 Brussels Exposition, Aug. 5 p 413
 Bell, Henry, and James Gayley:
 Eminent Scotch and a Great American Engineer,* Nov. 4 p 1383
 Bellows, Hand, Nov. 4 p 1455
 Belt:
 Dick, R. & J., Co.'s, Balata, July 22 p 300; Nov. 11 p 1528
 Dixon's Traction Dressing, Sept. 16 p 842
 Largest Leather,* Nov. 25 p 1642
 Peerless V,* July 15 p 183
 Pulley Shifter,* Aug. 5 p 401
 Zeppelin's Steel, Oct. 7 p 1078
 Belting Truck, Special,* July 29 p 373
 Benson Mines, Operations at, Sept. 2 p 715
 Bergen Point Iron Works:
 Van Buren Excavator,* Oct. 7 p 1055
 Berger Mfg. Company's Growth, Aug. 5 p 414
 Berlin, American Exposition at, July 15 p 176
 Berlin, American Permanent Sample Exhibition at, Aug. 26 p 653; Sept. 2 p 729
 Bermann, Max:
 Grinding Sparks of Steel,* Sept. 23 p 918
 Bertsch Multiple Punch and Squaring Shear,* Oct. 7 p 1064
 Bertsch Sheet Shear with Automatic Feed,* Aug. 12 p 479
 Besly Double Spiral Disk Grinder,* Aug. 5 p 397
 Besly Horizontal Disk Grinder,* Sept. 2 p 685
 Bessemer Steel, First American Made, Oct. 21 p 1238
 Bethlehem Steel Company:
 Acquires Cheever Mines, Oct. 7 p 1090
 By-Product Coke Plant, Nov. 18 p 1555
 Important New Construction, Sept. 30 p 1022
 Note Issue, Oct. 21 p 1225
 Largest Single Shipment of Steel, Oct. 21 p 1260
 Pennsylvania Engineering Works Receives Contract, Nov. 4 p 1429
 Titaniferous Iron Ore Smelting, Oct. 21 p 1223
 Bettendorf Axle Company's Enlargement, July 29 p 354
 Bevel Protractor, Starrett,* July 29 p 374
 Bevel, Rafter and Polygon, Calhoun,* Sept. 9 p 822
 Beverly, Mass., Industrial Education at, Dec. 2 p 1725
 Bickford & Washburn Pipe Tap Thread Milling Machine,* Oct. 7 p 1076
 Bignall & Keeler Pipe Machine, Improved,* Sept. 2 p 689
 Bigsby Mfg. Company Organized, Nov. 4 p 1410
 Bilz Sand Mixer and Sifting Machine,* Aug. 26 p 630
 Bin, Grain, Steel, Bushnell,* July 29 p 374
 Bird Cage, Brass Airship Canary,* Sept. 16 p 892
 Bird Cage Stands, Brass, Novelties in,* Oct. 21 p 1295

- Birkinbine, John:**
Iron and Coal Development in Mexico, Nov. 18 p 1549
- Birmingham Wire Plant, Gas and Electric Power for, Nov. 25 p 1650**
- Bit, Electrician's, Mephisto,* July 1 p 76**
- Blackwell, George G., Sons & Co., Ltd.:**
Tantalum as a Steel Alloy, July 22 p 268
- Blades:**
Hack Saw, All Hard, July 29 p 371
Safety Razor, and Easel Display,* Nov. 4 p 1448
Safety Razor, Stropers for,* July 1 p 78
- Blast Furnace:**
Additional Capacity, July 29 p 340
Advance in Eastern Wages, Oct. 7 p 1090
Best Records, Oct. 14 p 1155
Distribution in the United States in 1908,* Oct. 28 p 1308
First to Make 100 Tons a Day, Nov. 11 p 1498
Fuel Economy in, Nov. 4 p 1398
Largest Day's Output for a, Sept. 30 p 999
Monthly Statement, July 8 p 134; Aug. 5 p 419; Sept. 9 p 790; Oct. 7 p 1092*; Nov. 4 p 1413*; Dec. 9 p 1792*
Rate of Combustion in, Aug. 26 p 618
St. Louis, Nov. 4 p 1382
- Blast Pressure Record, Gayley Dry Air,* Oct. 21 p 1233**
- Bliss Compound Pneumatic Forging Hammer,* July 1 p 24**
- Bliss Double Crank Press,* Sept. 16 p 850**
- Bliss Steam Turbine,* July 29 p 324**
- Block, Yale & Towne 40-Ton Triplex Chain,* Sept. 9 p 777**
- Blower Patent Sustained, Sirocco, Dec. 2 p 1721**
- Board, Public Service,* Oct. 7 p 1134**
- Bogardus, W. P., Address by, Cui Bono? Aug. 26 p 669**
- Bogus Machinery Dealers, Dec. 30 p 1937**
- Boiler Tubes, National Steel, Sept. 16 p 845**
- Boiler:**
Erie City Vertical Water Tube,* Aug. 19 p 538
Explosions Seldom Caused by Bad Plates, Aug. 26 p 636
Fired with Coal Dust, Nov. 4 p 1383
H-S-G Steel Settings,* Aug. 5 p 402
Inspection Departments Organize, Aug. 19 p 563
Large Order for Erie City, July 1 p 36
Manufacturers' Association's Convention, Aug. 19 p 546
Modern Shop,* Dec. 9 p 1759
- Bolt and Clamping Devices, Red Wing Adjustable,* Nov. 18 p 1565**
- Bolt and Pipe Wrenches, R. & P. Co.,* Nov. 4 p 1455**
- Bolt, Brohard Lag Screw Expansion,* Dec. 16 p 1839**
- Bolt, Exit, Russwin Panic,* Sept. 30 p 1044**
- Bolt, Siamese Twin,* Nov. 11 p 1536**
- Bonus in Indiana, Industry, Oct. 14 p 1176**
- Book Reviews:**
Dictionary of Chemical and Metallurgical Material, Sept. 30 p 1006
Directory of Directors in the City of New York, Aug. 26 p 652
Downing's United States Customs Tariff, 1909, Nov. 25 p 1669
Efficiency as a Basis for Operation and Wages, Nov. 4 p 1394
Handbook for Field Geologists, Nov. 4 p 1394
History of the Clay Working Industry in the United States, Aug. 12 p 508
Laboratory Notes on Iron and Steel Analyses, Nov. 4 p 1394
Law of Advertising and Sales, Nov. 4 p 1394
- Book Reviews:**
Machine Building for Profit and the Flat Turret Lathe, Dec. 2 p 1713
Machine Shop Drawing, Sept. 23 p 932
Naval Pocketbook, Aug. 5 p 416
Study of the Open Hearth, Nov. 4 p 1394
Technisches Auskunftsbuch for the Year 1910, Dec. 2 p 1713
Theory of Structures, Nov. 25 p 1668
- Boring Machine:**
Baker Cylinder,* Dec. 2 p 1707
Beaman & Smith Standard Boring and Milling,* Dec. 30 p 1932
Cincinnati Combined Boring and Milling,* Nov. 25 p 1642
Cleveland Horizontal,* July 1 p 11
Colburn New Model Boring and Turning,* Dec. 30 p 1919
Colburn Vertical,* Aug. 26 p 626
Hoefler Vertical Two-Spindle Engine,* Sept. 30 p 1000
New Fosdick Horizontal Boring, Drilling and Milling,* Nov. 11 p 1475
Newton Cylinder,* Dec. 2 p 1710
Universal Horizontal,* Sept. 2 p 692
- Boston Steel Fabricators Acquitted of Conspiracy, Dec. 16 p 1839**
- Bottle and Can Opener, Sure Cut,* Nov. 25 p 1690**
- Bottle, Icy-Hot,* Sept. 30 p 1045**
- Bounties, Canadian:**
Company Profits, July 15 p 183
Iron and Steel, Dec. 16 p 1843
Payments, Nov. 25 p 1636
Showing in 1908-1909, July 8 p 145
- Bourne-Fuller Company Acquires Globe Rolling Mill Company, Dec. 30 p 1940**
- Bowser Mfg. Company, S. F.:**
Westinghouse Gas Producer in a Double Role, Sept. 9 p 780
- Box, Mail, Twentieth Century, No. 6* Oct. 14 p 1214**
- Box, Miter, Paper Hanger's,* Nov. 18 p 1614**
- Box, Oil Stone, Pike's Reversible,* July 22 p 309**
- Box Strap and Seal, Nailless, Brooks,* Aug. 19 p 599**
- Boyden, Seth, Inventor, Nov. 11 p 1496**
- Bracket, Sink, Griffin Adjustable,* Nov. 4 p 1455**
- Bradford Electric Light & Power Company:**
Gas Engine in Central Station Work,* July 22 p 256
- Bradford Machine Tool Company's Improvements, Sept. 30 p 1005**
- Bradshaw, Grant D.:**
Rolling Speed and Annealing, Dec. 2 p 1701
- Brass Skimmings, Method of Saving, Oct. 28 p 1330**
- Brass, Use of Charcoal in Melting, Aug. 19 p 553**
- Brazilian Ore Deposits Extraordinary, July 8 p 131**
- Bread and Cake Makers, Central Seamless,* Sept. 16 p 892**
- Breast Drills, Yankee Double and Single Speed,* Oct. 21 p 1295**
- Brewer Multiple Tool Holder,* Sept. 9 p 777**
- Brick and Plastering Trowels, Sept. 30 p 1044**
- Bridgeport Wood Finishing Company's Products, Oct. 28 p 1368**
- Bridges:**
County Lettings in Indiana, July 1 p 33
Quebec, The, Sept. 23 p 915; Dec. 9 p 1772
Scherzer Contracts, Nov. 11 p 1474
Temperley Conveyor for Loading Vessels,* Aug. 19 p 552
U. S. Piling,* Nov. 18 p 1553
- Bristol Quick-Reading Electric Pyrometer,* Aug. 26 p 625**
- Bristol's Recording Instruments, Aug. 12 p 496**
- British Foundrymen's Association, Aug. 19 p 537**
- British Galvanized Sheet Market, Break in, Aug. 12 p 471**
- British Iron and Steel Exports in 1909, Aug. 19 p 540**
- British Iron and Steel Imports Increase, Oct. 7 p 1065**
- British Iron Industry, Electrical Progress in, Dec. 2 p 1722**
- British Iron and Coal Production in 1908, Sept. 2 p 717**
- British Iron Trade, Aug. 19 p 577**
- British Iron Trade Waiting, Dec. 2 p 1757**
- Brohard Lag Screw Expansion Bolt,* Dec. 16 p 1839**
- Browne & Sharpe Mfg. Company:**
Hob Grinding Attachment,* July 29 p 328
Large Hob,* July 1 p 20
Miller Tests, July 15 p 176
Prevention of Accidents in Foundries,* July 22 p 252
Universal Grinder Head,* Dec. 2 p 1708
- Brown Electric Recording Pyrometer,* July 15 p 176**
- Brown, Fordyce W.:**
Removing Oil from Machined Pieces,* Sept. 23 p 906
- Brown Ring Oiler,* Sept. 23 p 920**
- Brushes, Paint, Displaying and Selling,* Sept. 16 p 885**
- Brush Runabout Plant, New, Sept. 2 p 708**
- Brush Set in Natural Ebony, July 22 p 308**
- Brush, Spray, Knickerbocker,* Oct. 28 p 1369**
- Brussels Exposition, Approaching, Aug. 5 p 413**
- Bryant Chucking Grinder,* Nov. 4 p 1379**
- Buchanan, Robert:**
Production of Sound Castings, Sept. 9 p 770
- Bucket, Foundry, Novelty,* Sept. 2 p 752**
- Bucyrus Locomotive Pile Driver,* Dec. 23 p 1872**
- Buenos Aires Exposition, Nov. 11 p 1493; p 1495**
- Buffalo Exhausters, New,* Nov. 18 p 1554**
- Buffalo Hand Power Slitting Shear,* Oct. 14 p 1153**
- Buffalo Manufacturers' Club Industrial Exposition, Oct. 21 p 1267**
- Buffalo Frontier Terminal Railway, July 29 p 631**
- Buffalo Union Furnace Company, Aug. 5 p 417**
- Buffum Tool Company's Catalogue, Oct. 21 p 1281**
- Bug, The System, Sept. 9 p 818**
- Building an Industrial City,* July 1 p 1**
- Bureau of Standards to Supervise Steel Rail Tests, Aug. 19 p 560**
- Bureaus, Freight Transportation, Oct. 28 p 1354**
- Burgess and Aston:**
Physical Properties of Iron-Copper Alloys,* Nov. 11 p 1476
- Burt Oil Filters at Gary,* Sept. 9 p 767**
- Burner and Generator Oil, Blue Flame Distillate,* Nov. 11 p 1536**
- Bushnell Silo, Aug. 5 p 452**
- Business Specialist and Modern Methods, July 15 p 184**
- Butler, Joseph G., Jr.:**
Iron Trade Reminiscences, Nov. 11 p 1494
- Buttons, Toolmakers', for Jig Work,* Sept. 9 p 822**
- Butts, Spring, Triplex, Chicago,* Aug. 26 p 671**
- Butts, Wrought, in Shelf Drawer,* Oct. 7 p 1124**
- Butts, Wrought, Sampled,* Oct. 7 p 1124**
- Buying Carbon Tool Steel on Specification, Aug. 12 p 483**
- Buying, Speculative, Aug. 12 p 486**

C.

- Cabinets:
 Delivery Routes,* Sept. 2 p 740
 Fishing Tackle,* Nov. 25 p 1682
 Kitchen, with Fireless Cooker, I-X-L Electric,* July 22 p 310
 Screw,* Nov. 25 p 1682
 Tack and Sandpaper,* Nov. 25 p 1682
 Cableways, Panama Canal,* Nov. 11 p 1472
- Caine, W. P.:
 Governing Rolling Mill Engines,* Dec. 23 p 1886
- Cage, Bird, Brass Airship Canary,* Sept. 16 p 892
- Cage Stands, Brass Bird, Novelties in,* Oct. 21 p 1295
- Cake and Bread Makers, Central Seamless,* Sept. 16 p 892
- Calculation of Quality Figures, Aug. 12 p 488
- California, New Steel Foundry for, Dec. 2 p 1715
- Calipers, Outside and Inside,* July 29 p 374
- Cambria Steel Company's Presidency,* Nov. 25 p 1630
- Cambria Steel Company to Enter Wire Trade, Dec. 30 p 1955
- Cam Cutter, Rowbottom,* Dec. 30 p 1928
- Camerman, Em.:
 Rust Preventing Paints for Metal Structures, Oct. 21 p 1250
- Cammell, Laird & Co., Ltd.:
 Cyclone Special Steel Tests, July 8 p 127
- Camshaft Grinder, Norton,* Dec. 23 p 1878
- Canada:
 Activity at the Lakes, Oct. 21 p 1245
 American Mica Market, July 22 p 258
 Atikokan Iron Company's Furnace in Blast, Aug. 12 p 491
 Bounties and Company Profits, July 15 p 183
 Bounties and Other Topics, Dec. 30 p 1944
 Bounty Payments, Nov. 25 p 1636
 Bounty Showing in 1908-9, July 8 p 145
 Car Builders Merge Their Interests, Nov. 11 p 1485
 Chrome Iron Ore, Sept. 16 p 840
 Countries Enjoying Canada's Easier Tariff Terms, Dec. 9 p 1795
 Demand for Steel, Nov. 4 p 1410
 Dominion Iron & Steel Company, Annual Report, July 15 p 200
 Dominion's Naval Policy May Provide for Shipbuilding, July 15 p 195
 Dry Docks, Nov. 18 p 1561
 Expanding Steel Industry, July 1 p 30
 Export Duty on Newfoundland Iron Ore, Advocating an, Aug. 19 p 561
 Franco-Canadian Treaty and Farm Implement Trade, Dec. 9 p 1793
 Great Hydroelectric Project for Vancouver Island, Aug. 12 p 489
 Industrial Attraction of Niagara Power, Aug. 26 p 652
 Industrial Developments, Sept. 30 p 991
 Industrial Notes, Nov. 4 p 1411; Nov. 11 p 1491
 Iron and Steel Bounties, Dec. 16 p 1843
 Iron Ore Deposits of Nova Scotia, July 22 p 255
 Koppers Coke Ovens for Lake Superior Corporation, Dec. 9 p 1781
 Labor Disputes, Dec. 16 p 1823
 Manufacturers and Municipal Equipment Orders, Nov. 4 p 1408
 Manufacturers and Protection, Sept. 30 p 1006
 Maximum Duties of the Payne Tariff, Nov. 18 p 1563
 Naval Plans and Shipbuilding Prospects, Sept. 16 p 855
 Operations of American Manufacturers, July 1 p 23
 Pig Iron Production in 1909, Aug. 12 p 491
 Planting Industries, July 22 p 277
- Canada:
 Quebec Bridge, Sept. 23 p 915; Dec. 9 p 1772
 Sault Lock Accident and the Panama Canal, July 1 p 33
 Scrap and Iron Ore, Aug. 12 p 490
 Shipbuilding, Oct. 14 p 1176
 Shipbuilding Plant for Port Arthur, Aug. 19 p 560
 Shipyards, Oct. 21 p 1233
 Some New Projects, Nov. 25 p 1629
 Steel Merger, Nov. 18 p 1572
 Thunder Bay Iron Ore Development, Sept. 9 p 781
 Tin Plate Free of Dumping Duty, July 29 p 338
 Tin Plate Works Now a Sheet Plant, Aug. 5 p 434
 Tungsten Ores, Sept. 2 p 715
 Welsh Tin Plate Makers and Canada's Market, Sept. 9 p 803
 Western Drydock & Shipbuilding Company, Aug. 5 p 434
 Canal, Panama, July 1 p 6*; July 1 p 31; July 8 p 114*
 Candle Holders and Sticks and Match Stands, Oct. 28 p 1368
 Candlesticks, Brass,* July 15 p 237
 Candlesticks, Shades and,* Aug. 5 p 452
 Can and Bottle Opener, Sure Cut,* Nov. 25 p 1690
 Can Soldering Machines, Ferracute,* Aug. 26 p 620
 Cans, Manufacture of Tin,* Sept. 2 p 681
 Capewell Horse Nail Company's Trade-mark on Head of Nails Sustained, Sept. 23 p 968
 Car Chute, Quick Unloading,* Oct. 7 p 1080
- Car:
 Atkins A A A Mover,* Sept. 23 p 917
 Clark Rapid Dumping Ore,* Dec. 9 p 1778
 Jeffrey Storage Battery,* Aug. 19 p 541
 Seventy-Ton Steel Gondola, Nov. 18 p 1554
 Shortage Calls for Co-operation of Shippers, Sept. 30 p 1003
 Carborundum Four-Drawer Display Case,* July 22 p 307
 Card Table, Folding, Tip-Top, Oct. 7, p 1131
 Carpenters' Portable Tool Chests,* Aug. 5 p 454
 Carpenters' Round Bench Stone, Carborundum,* Nov. 25 p 1689
 Carriages, Doll, Go-Carts and Sleepers, July 15 p 237
 Car Wheels, New Process of Making Chilled,* Aug. 5 p 390
 Car Wheels, Specifications for Cast Iron, Aug. 5 p 414
 Carbon in Steel, Determining,* July 22 p 260
 Carborundum and Carborundum Products Used in Foundry, Nov. 11 p 1482
 Card of Steel Extras, New Carnegie, Sept. 16 p 871
 Cargoes, Increasing Average Size of Iron Ore, Dec. 23 p 1877
 Carnegie, Andrew, Research Scholarship, Dec. 9 p 1782
 Carnegie Steel Company:
 Best Blast Furnace Records, Oct. 14 p 1155
 Card of Steel Extras, New, Sept. 16 p 871
 Escanaba Furnace, Nov. 18 p 1570
 Steadily Increasing Operations, July 29, p 331
 U. S. Piling in Bridge Building,* Nov. 18 p 1553
 Warehouse at Pittsburgh, New, Oct. 28 p 1333
 Will Build Large Finishing Mills at Girard, Ohio, Nov. 11 p 1503
 Carpenter Machine Screw Taps and Dies, Oct. 7 p 1090
 Carpenter, Prof. R. C.:
 New York High Pressure Fire Service,* Oct. 21 p 1240
 Cartridges, U. M. C. Metal Point Revolver,* Oct. 14 p 1215
- Cars and Locomotives, New, Aug. 26 p 641; Sept. 9 p 786; Sept. 16 p 872; Oct. 28 p 1307
 Case-Hardening of Steel by Gases, Experiments on the, July 8 p 120
 Cases:
 Combination, for Screens and Stove Boards,* July 22 p 304
 Fiber Shipping, Walpole,* Nov. 4 p 1456
 Lunch and Beverage, Combination,* Aug. 12 p 524
 Razor, Clauss Silent Salesman No. 24,* Sept. 16 p 892
 Cash Business, Michigan Merchant's Experience with, Sept. 16 p 887
 Casters, Invisible Sheet Steel,* Oct. 7 p 1132
 Casting Job, Difficult Steel,* Sept. 23 p 921
 Castings, Electric Furnace for Steel,* Aug. 5 p 386
 Castings, Production of Sound, Sept. 9 p 770
 Castings, Steiro,* Sept. 2 p 703
 Cast Iron After Repeated Heatings, "Growth" of, Oct. 7 p 1086
 Cast Iron and Steel Toys, Arcade,* Aug. 26 p 673
 Cast Iron Pipe, German Methods in the Manufacture of,* Dec. 16 p 1820
 Cast Iron Test Bars, Report on, Dec. 30 p 1934
 Catcher, Grass, Richards Good Sense,* July 8 p 166
 Catty, the Term, July 8 p 158
 Cement, Dragon Portland, Sept. 23 p 929
 Cement Kilns, Rotary, Dec. 30 p 1938
 Cementizing, Electro,* Nov. 11 p 1484
 Census Iron and Steel Schedules, Nov. 25 p 1648
 Census Metal Working Schedules, Dec. 2 p 1720
 Census Preparations, Nov. 11 p 1471
 Centennial, St. Louis, Sept. 9 p 784; Sept. 23 p 960
 Central and South American Notes, July 1 p 36; July 15 p 189; Sept. 16 p 849; Nov. 11 p 1515
 Central Iron Works Improved Water Cinder Mill,* Nov. 18 p 1560
 Central Supply System, Interesting, Sept. 16 p 849
 Central Tube Company, July 15 p 182
 Centralization of Electric Power Supply, Sept. 2 p 702
 Chafing Dish, Alcohol Gas Stove,* Nov. 25 p 1690
 Chain, Sash, Rack,* Sept. 2 p 740
 Chains, Dog, Covert's Fancy,* Sept. 2 p 750
 Chair, Stool, Modern, Improved,* Nov. 18 p 1612
 Champion Heavy 18-in. Lathe,* Sept. 30 p 987
 Chapman Electrically Operated Valves,* Nov. 18 p 1547
 Chapman Valves, Oct. 7 p 1068
 Charcoal in Melting Brass, Use of, Aug. 19, p 553
 Charcoal Pig Iron, Large Purchase of, Dec. 2 p 1700
 Cheap, versus Good, Hardware, Nov. 4 p 1451
 Check and Holder, Door, Russwin Combined,* Nov. 18 p 1613
 Check, Door, Portable, Harkness,* Sept. 23, p 969
 Checking up Freight Bills,* Aug. 19 p 589
 Cheever Mines Acquired by Bethlehem Steel Company, Oct. 7 p 1090
 Chemical Engineers, American Institute of, Nov. 18 p 1596; Dec. 16 p 1844
 Chest, Tool, Carpenters' Portable,* Aug. 5 p 454
 Chicago & Northwestern Railway:
 Railroad Automobile, July 22 p 255
 Chicago Duplex Feather Keyseating Machine,* Nov. 4 p 1387
 Chicago Hand Miller, Improved No. 3,* July 29 p 332
 Chicago, School-Shon Apprentice Plan in, Oct. 28 p 1319

- Chicago's Machinery Exhibition Warehouse,* Oct. 21 p 1224
- Chile Iron Making Prospects, Sept. 16 p 836
- Chilled Car Wheels, New Process of Making,* Aug. 5 p 390
- Chilled Roll, Largest in the World, July 29 p 327
- Chinese Contract for an American Telephone System, Aug. 12 p 477
- Chisel Inserted Tooth, Improved Perfection,* Aug. 19 p 600
- Chisels and Auger Bits, Moving Exhibits of,* Nov. 18 p 1608
- Chrome Iron Ore in Canada, Sept. 16 p 840
- Chromic Iron Ore in 1908, Production of, July 29 p 323
- Chuck:
- Cleveland Automatic Two-Jaw,* Aug. p 399
- Horton Lathe,* Dec. 2 p 1712
- Jarvis Drawing-In,* Sept. 30 p 999
- Prybil Balanced Elliptical,* Nov. 25 p 1640
- Skinner Special Gear,* Sept. 2 p 697
- Thompson Automatic Tapping,* Nov. 18 p 1562
- Chute, Quick Unloading Car,* Oct. 7 p 1080
- Cincinnati Automatic Gear Cutting Machines,* Sept. 30 p 990
- Cincinnati-Bickford Gang Drill,* Oct. 28 p 1307
- Cincinnati-Bickford Gear-Testing Machine,* Aug. 26 p 613
- Cincinnati Combined Milling and Boring Machine,* Nov. 25 p 1642
- Cincinnati Continuation Schools, Aug. 5 p 414
- Cincinnati High Speed Drilling and Tapping Machine,* Sept. 9 p 761
- Cincinnati Machine Tool Business, History of, Dec. 2 p 1734
- Cincinnati Metal Trades Association, July 15 p 217; Dec. 23 p 1871
- Cincinnati Tool Makers and Foundry Contracts, Sept. 30 p 1005
- Cincinnati Two-Speed Planer Drive,* Aug. 26 p 631
- Cinder Mill, Central Iron Works Improved Water,* Nov. 18 p 1560
- Clamping and Bolt Devices, Red Wing Adjustable,* Nov. 18 p 1565
- Clamp, Saw, Diamond Edge,* July 22 p 308
- Clark Rapid Dumping Ore Car,* Dec. 9 p 1778
- Cleaner, Drain, Kohler Adjustable, July 1 p 78
- Clerks, Getting Good Service from, Sept. 30 p 1036
- Cleveland Automatic Two-Jaw Chuck,* Aug. 5 p 399
- Cleveland Chipping Hammer, New, Aug. 12 p 488
- Cleveland Foundry Company:
- Compensation for Accidents, Dec. 23 p 1876
- Cleveland Horizontal Boring Machine,* July 1 p 11
- Clinching Nails, Holdfast, Oct. 21 p 1294
- Clipper, Orange,* Aug. 12 p 525
- Clipper, Orange, Practical,* Nov. 4 p 1457
- Closed Shop, Argument for the, Dec. 30 p 1937
- Clothes Post, Removable Steel, with Adjustable Steel Hook,* Oct. 7 p 1132
- Clothes Posts, Removable Steel, Nov. 4 p 1458
- Coal:
- Boilers Fired with Dust, Nov. 4 p 1383
- Dodge Grading and Handling Equipment,* Sept. 9 p 768
- Illinois Tests, Nov. 11 p 1497
- Pennsylvania's Output in 1908, Aug. 12 p 491
- Pittsburgh Contract for Italy, July 22 p 272
- Production in 1908, Aug. 19 p 559
- Value in Terms of the Ashes,* Nov. 4 p 1401
- Coal:
- Virginian Railway's Handling Plant,* July 22 p 247
- Virginia the Oldest Producer, Aug. 26 p 613
- Coasters:
- Bumble Bee,* July 1 p 74
- Gliderole,* Sept. 23 p 970
- No. 35,* Aug. 5 p 453
- Wagon, Badger, July 8 p 164
- Coating Iron and Steel with Copper or Brass by Dipping, Dec. 2 p 1729
- Coats, Shooting, Norleigh Diamond,* Aug. 12 p 524
- Cobblers' Outfit, Dalton,* Nov. 11 p 1536
- Coffee Machine, Percolating, Six-Piece Set,* Nov. 18 p 1611
- Cog and Rack Head, Kerco,* Sept. 23 p 970
- Coke:
- By-Product Plant for South Bethlehem, Pa., Nov. 18 p 1555
- Direct Production of Ammonia from Oven Gas,* Dec. 9 p 1764
- Koppers By-Product Ovens for Gary, July 1 p 29
- Koppers By-Product Ovens for Lake Superior Corporation, Dec. 9 p 1781
- Illinois Production in 1908, Aug. 12 p 506
- Indiana Production in 1908, Aug. 19 p 552
- Pig Iron Makers Attack Freight Rates, Aug. 26 p 658
- Production in 1908, Sept. 16 p 856
- Production in Pennsylvania in 1908, Aug. 26 p 621
- Under Flue Plant at Dawson, N. M.,* Aug. 5 p 400
- Colburn Floating Reamer Holder for Boring Mills,* Nov. 25 p 1638
- Colburn Machine Tool Company's Chicago Representation, Aug. 19 p 576
- Colburn New Model Boring and Turning Mills,* Dec. 30 p 1919
- Colburn Vertical Boring Mill,* Aug. 26 p 626
- Colonial Brush & Mfg. Co., Aug. 6 p 451
- Colonial Steel Company, Oct. 7 p 1088
- Colonial Steel Company, New Products, Sept. 9 p 763
- Colorado Fuel & Iron Company:
- Annual Report, Dec. 30 p 1923
- Good Showing, Sept. 16 p 869
- Columbia Steel Company, Dec. 2 p 1715
- Columbia Steel Tool Company:
- Crucible Steel Furnace Record, July 8 p 113
- Columbus Malleable Casting Company:
- Stelro Castings,* Sept. 2 p 703
- Combustion Engine and the Machinery Trade, Dec. 23 p 1891
- Combustion in Blast Furnaces, Rate of, Aug. 26 p 618
- Commerce During July, Internal, Sept. 9 p 802
- Commode, Enameled,* Sept. 23 p 970
- Compensation for Accidents, Dec. 23 p 1876
- Compensation for Industrial Accidents, Dec. 2 p 1726
- Compensation Laws, Workingmen's, Oct. 28 p 1312
- Compensation to Workmen for Accidental Injuries, Sept. 30 p 994
- Compound, Valve-Grinding, Carborundum, Nov. 11 p 1535
- Compressors, Mesta Air,* July 15 p 175
- Concentrates, Dunderland Iron Ore, July 15 p 187
- Concrete:
- And Steel Industry, Aug. 26 p 634
- Cornwall Portable Mixer,* Sept. 16 p 841
- Iowa Cutter and Curbing Edger,* July 29 p 373
- Laying Under Water, July 22 p 251
- Prevention of Rust in Reinforcement, Oct. 21 p 1251
- Reinforced for Factory Construction,* Oct. 21 p 1234
- Shafts at Lake Iron Mines,* Aug. 26 p 622
- Condenser:
- Westinghouse-Leblanc,* Aug. 5 p 383
- Wheeler Dry Tube,* Oct. 7 p 1072
- Wheeler Rain-Type Jet,* Nov. 4 p 1396
- Connellsville Electric Mine Hoist,* Sept. 9 p 780
- Connellsville 500-Hp. Mine Hoist, Sept. 16 p 849
- Connellsville Iron Works Orders and Improvements, Nov. 4 p 1401
- Consolidation, English Steel, July 15 p 203
- Consolidations and the Sherman Act, Nov. 25 p 1644
- Contest, Range Bidding,* Nov. 18 p 1603
- Continental Company., Nov. 25 p 1688
- Contracts, Pittsburgh Engineers Discuss, Sept. 9 p 766
- Conventions:
- American Boiler Manufacturers' Association, Aug. 19 p 546
- American Electrochemical Society, Oct. 14 p 1176; Oct. 21 p 1244
- American Foundrymen's Association, Oct. 21 p 1223; Dec. 2 p 1700; Dec. 23 p 1875
- American Institute of Chemical Engineers, July 8 p 127; Nov. 18 p 1596; Dec. 16 p 1844
- American Society for Testing Materials, July 1 p 37; July 8 p 96
- American Society of Engineering Contractors, Sept. 2 p 701
- American Society of Mechanical Engineers, Nov. 18 p 1570; Dec. 9 p 1788; Dec. 16 p 1824
- Electrochemical Society, Nov. 4 p 1414
- International Congress of Mining and Metallurgy, Nov. 4 p 1409
- International Society for Testing Materials, Sept. 16 p 872; Sept. 23 p 922; Sept. 30 p 997
- Iron and Steel Institute, Sept. 9 p 802
- Lake Superior Mining Institute, Aug. 5 p 389; Aug. 26 p 639; Sept. 2 p 709
- Leather Belting Manufacturers' Association, Nov. 25 p 1646
- Metal Bed and Bed Spring Manufacturers' Association, Dec. 16 p 1846
- National Association of Cement Users, July 8 p 111
- National Founders' Association, Oct. 21 p 1233; Nov. 11 p 1486; Nov. 18 p 1566
- National Machine Tool Builders' Association, Oct. 14 p 1171; Oct. 21 p 1231
- Society of Naval Architects and Marine Engineers, Nov. 11 p 1500
- Conventions, Hardware:
- American Hardware Manufacturers' Association,* Oct. 21 p 1282
- Arkansas Retail Hardware Association,* July 1 p 67
- Carolinas Retail Hardware Association, July 8 p 162; July 15 p 231
- Florida Retail Hardware Association,* Oct. 28 p 1355
- Michigan Retail Hardware Association,* Aug. 19 p 590
- National Hardware Association, Oct. 14 p 1207; Oct. 21 p 1282*
- Tennessee Retail Hardware Association,* Sept. 2 p 747
- Conveying Machinery Company:
- New High Speed Turbine Fan,* Sept. 16 p 842
- Cookers:
- Fireless, I-X-L, No. 1,* Aug. 26 p 671
- Fireless, Silver,* Aug. 5 p 455
- Fireless with Kitchen Cabinet, I-X-L Electric,* July 22 p 310
- Vac-Jac,* Sept. 9 p 820
- Cooking Exhibition and Fall Opening, Nov. 25 p 1679
- Cooler and Filter, Water, Suco Pure,* Aug. 19 p 600
- Coolidge, M. A.:
- Industrial Education, Oct. 14 p 1170
- Cooper Company, C. & G.:
- Cooper Engine, Aug. 5 p 413
- Cooper Gas Engine,* Oct. 14 p 1156
- Seventy-Five Years of Engine Building, Nov. 11 p 1500

- Coping Saw Frame, Irving No. 157,* Sept. 2 p 751
- Copper and Brass, Corrosion of,* Dec. 23 p 1883
- Copper Clad Steel, Dec. 2 p 1711
- Copper:
- Coating Iron and Steel, with, by Dipping, Dec. 2 p 1729
 - Cost of Making, Aug. 5 p 420
 - Metal Exchange Transaction, July 15 p 203
 - Outlook for, Oct. 14 p 1166
 - Production and Stocks, July, Aug. 12 p 506; August, Sept. 16 p 872
 - September, Oct. 14 p 1168; October, Nov. 11 p 1515; November, Dec. 16 p 1848
 - Situation, July 15 p 196
 - Statistical Position and Future of,* Dec. 9 p 1780
 - Tin-Lead Alloy Patents, July 1 p 32
 - Zinc and Aluminum-Copper-Tin Alloys, Nov. 4 p 1395
- Copyright in Drawings of a Technical Character, July 8 p 122
- Cornwall Portable Concrete Mixer,* Sept. 16 p 841
- Corporations May Again Become Partnerships, Dec. 16 p 1842
- Corporation Tax, Plans for Collecting the, Aug. 19 p 582
- Corrosion of Copper and Brass,* Dec. 23 p 1883
- Cost Accounting in the Implement and Vehicle Trade, Nov. 11 p 1534
- Cost of Doing Business in the Implement and Vehicle Trade, Oct. 21 p 1279
- Cost of Steel by the Lash Direct Process, Sept. 2 p 699
- Costs in Great Britain, Low Shipbuilding, Aug. 12 p 477
- Costs and Efficiency, Machine Tool, Nov. 4 p 1406
- Costs, Constant Comparison of, Aug. 19 p 558
- Costs, Watching for Wasteful, Oct. 21 p 1246
- Cost Systems in the Navy, Nov. 4 p 1407
- Cot, Drum Head, No. 30,* Oct. 28 p 1370
- Cote, George M.:
- One Cause of Railroad Wrecks, Aug. 19 p 558
- Countershaft, Hawkeye Variable Speed,* Sept. 9 p 776
- Country Towns, Labor Conditions in, Oct. 21 p 1247
- Cover Lifters, Parkinson's Evercool,* Nov. 4 p 1457
- Covington Machine Company:
- Wals Patent Universal Shear,* July 29 p 327
- Crack, Nut, Spring,* Sept. 30 p 1046
- Cramp, Wm. & Sons Ship & Engine Building Company:
- Annual Report, July 1 p 36
 - Battleship South Carolina, Sept. 2 p 733
- Crane, German Electric Rotary,* Sept. 2 p 700
- Crane Iron Works Furnace, New, Sept. 16 p 846
- Crane, Whiting Portable Jib,* Aug. 5 p 401
- Credit, Fire Insurance and Prevention, as Related to, Nov. 4 p 1446
- Credits, Looking After, Oct. 21 p 1231
- Crescent Variety Wood Worker,* July 22 p 264
- Cresson, Elliott, Medal for the Vernaz Milling File, Sept. 30 p 997
- Crop Outlook, Great, July 15 p 196
- Crosby Company, Aug. 12 p 477
- Crown Telephones, All Metal, for Various Purposes,* Sept. 16 p 894
- Crucible Steel Company of America:
- Annual Report, Oct. 7 p 1091
 - Officers, Nov. 4 p 1400
- Crucible Steel Furnace Record, July 8 p 113
- Crucibles for Oil Furnaces, Dec. 2 p 1723
- Cuba, Iron Ore Shipments, Oct. 7 p 1090
- Cuba, Residual Brown Iron Ores,* Aug. 26 p 614
- Cuba's Tariff Relations Under Discussion, Oct. 7 p 1065
- Cui Bono? Address by W. P. Bogardus, Aug. 26 p 669
- Cultivator, Garden, Hand, Norcross Improved,* Sept. 2 p 752
- Curbing Edger and Concrete Cutter, Iowa,* July 29 p 373
- Customs Decisions:
- Aeroplanes, Sept. 23 p 933
 - Arsenical and Manganese Copper, Nov. 11 p 1494
 - Automobile Tire Bolts, Aug. 5 p 422
 - Bronze Ornamentation, Aug. 26 p 627
 - Bronze Wire Cloth, Nov. 4 p 1430
 - Built-Up Mica, Aug. 5 p 422
 - Compasses or Dividers, July 8 p 133
 - Composition Metal, Aug. 19 p 563
 - Feed Pump Fittings, Nov. 25 p 1647
 - Ferroalloys, Dec. 2 p 1721
 - Ferrosilicon, Dec. 23 p 1893
 - Fish Hooks, Sept. 30 p 1004; Dec. 2 p 1721
 - Flies for Fishing, &c., July 8 p 133
 - Gas Cylinders, Nov. 4 p 1430
 - Government Defeated in the Ferroalloy Test Case, Dec. 23 p 1893
 - Iron Drums Used as Containers, Sept. 23 p 933
 - Iron Tubes, Sept. 30 p 1004
 - Letter Openers, Dec. 2 p 1721
 - Metal Box Binding, Nov. 25 p 1647
 - Metal Containers, Oct. 28 p 1321
 - Metal Foot Ball Boxes, Nov. 4 p 1430
 - Metal Photograph Frames, Aug. 26 p 627
 - Metal Wares Coated with Enamel Paint, Nov. 25 p 1647
 - Nickel Plates, Nov. 4 p 1430
 - Old Iron Plates from an American Vessel, Dec. 23 p 1893
 - Rifle Barrels, Dec. 2 p 1721
 - Rivets for Ornamental Work, Oct. 28 p 1327
 - Scrap Iron and Steel Duty, Dec. 23 p 1893
 - Scrap Iron from Panama, July 8 p 133
 - Scrap Steel Defined, Oct. 28 p 1327
 - Steel Drawplates and Wortles, Aug. 5 p 422
 - Steel Floor Plates, Nov. 25 p 1647
 - Steel Points, Oct. 21 p 1273
 - Steel Railroad Frogs, Dec. 2 p 1721
 - Steel Scrapers for Wood Working, Oct. 7 p 1093
 - Steel Strips for Knives, Nov. 4 p 1430
 - Steel Tubing, Oct. 21 p 1273
 - Steel Wedge Bolts, Nov. 4 p 1430
 - Sundry Decisions, Aug. 5 p 422
 - Welding Compound, July 8 p 133
 - Wire Rat Traps, Aug. 12 p 513
- Cutler-Hammer Mfg. Company:
- Lifting Magnet, Sept. 30 p 996
 - Revised Navy Specifications for Electric Motors and Controlling Devices, Dec. 2 p 1701
- Cutler Men, Group of Aged English,* Aug. 12 p 519
- Cutlery, American Tap & Die Co.'s, Sept. 16 p 895
- Cutlery and Other Articles, Marking of Imported, Sept. 9 p 787
- Cutlery Case, Upright, Oct. 7 p 1124
- Cutter, Rowbottom Cam,* Dec. 30 p 1928
- Cutters:
- Concrete and Curbing Edger, Iowa,* July 29 p 373
 - Ensilage, Self-Feed, Ohio Monarch,* July 15 p 238
 - Glass, Monitor Magazine, No. 200,* Nov. 11 p 1539
- Cutting and Welding Metals, Oxhydric Process of,* Nov. 11 p 1467
- Cutting Down Expenses, Aug. 12 p 518
- Cutting-Off Machine, Gorton No. 2-B,* Sept. 30 p 992
- Cyclone Special Steel Tests, July 8 p 127
- Cyclops Foundry Company, Nov. 18 p 1548; Dec. 2 p 1715
- D.
- Darke, J. M.:
- Buying Carbon Tool Steel on Specification, Aug. 12 p 483
- Davis-Bournonville Company:
- New Autogenous Welding Equipment,* July 15 p 188
- Davis Lathe Drive and Feed Improvements,* July 29 p 331
- Dawson, N. M., Under-Flue Coke Plant at,* Aug. 5 p 400
- Daylight Association, National, July 15 p 199
- Dead Stock, Accumulation of, Sept. 30 p 1036
- Dean Steam Pump Company:
- Philadelphia's High Pressure Fire System Extended,* Oct. 28 p 1305
- Decisions, Judicial, July 15 p 201; July 22 p 306; Aug. 19 p 555; Aug. 26 p 651; Sept. 2 p 714; Sept. 30 p 1001; Oct. 21 p 1239; Nov. 4 p 1404; Dec. 2 p 1751; Dec. 30 p 1956
- Decline in Towns and Villages, Sept. 23 p 961
- Defects, Steel Rail,* July 22 p 266
- Deficit, Postal, the \$20,000,000, Oct. 14 p 1210
- Delaware, Navy Department Favors the, Dec. 23 p 1879
- Deliveries, Machinery Buyers Should Accept Agreed, Dec. 30 p 1927
- Delivery, Prompt, Sept. 30 p 1037
- Delivery Routes Cabinet,* Sept. 2 p 740
- Demonstrating New Goods and Specialties, July 8 p 161
- Demurrage on Delayed Shipments, Aug. 5 p 410
- Demurrage Rules, Commissioners', Oct. 28 p 1325; Dec. 2 p 1726
- Demurrage Rules, Proposed National, July 22 p 270
- Denmark, Metric System in, Dec. 30 p 1938
- Determining Carbon in Steel,* July 22 p 260
- Determining Sulphur in Steel,* Oct. 28 p 1318
- Developing New Demand for Machinery, Nov. 4 p 1407
- Dick, R. & J., Company's Balata Belting, July 22 p 300
- Dictated but Not Re-read, July 1 p 74
- Die Stock, Handy,* Nov. 11 p 1537
- Dies, Round Adjustable, Improved,* Oct. 28 p 1371
- Dies, Taps, and Screw Plates, A. S. M. E. Standard, Sept. 2 p 748
- Digger, Post Hole, Hexagon,* July 22 p 308
- Dish and Silver Drainer, Combined, Royal,* Oct. 7 p 1133
- Disk Plows, Unsalable, Sept. 9 p 814
- Display Case, Carborundum Four-Drawer,* July 22 p 307
- Displaying Screen Doors, Sample, Standard for,* Aug. 5 p 450
- Display Trays,* Nov. 25 p 1682
- Distinguishing Wrought Iron from Steel,* Dec. 23 p 1894
- Distribution of Blast Furnaces in United States in 1908,* Oct. 28 p 1308
- Distribution of Iron and Steel Demand, Changed, July 1 p 30
- Dividers, Starrett,* July 29 p 374
- Dixon's Traction Belt Dressing, Sept. 16 p 842
- Dock, Herman:
- Self-Starting Gas Engine, Aug. 5 p 397
- Docks at Cleveland, Large New Ore, Nov. 11 p 1515
- Dodge Coal Grading and Handling Equipment,* Sept. 9 p 768
- Dodge Mfg. Company, Aug. 12 p 489; Aug. 26 p 613; Sept. 30 p 987; Nov. 18 p 1551; Nov. 25 p 1631; Dec. 9 p 1815
- Dog Chains, Covert's Fancy,* Sept. 2 p 750
- Dog, New Hill Milling Machine,* July 1 p 17
- Doll Go-Carts, Sleepers and Carriages, July 15 p 237
- Dollies, Washing Machine Steel Armed,* July 1 p 76
- Dominion Iron & Steel Company, Annual Report, July 15 p 200

Door Check and Holder, Russwin Combined,* Nov. 18 p 1613
 Door Check, Portable, Harkness,* Sept. 23 p 969
 Door Lock, Emergency Exit, Clark's,* Nov. 4 p 1457
 Door Lock, Sliding, Richards No-Break, No. 500,* Sept. 2 p 749
 Doors, Screen, Standard for Displaying Sample,* Aug. 5 p 450
 Douglas, Dr. James, Statistical Position and Future of Copper,* Dec. 9 p 1780
 Dragon Portland Cement, Sept. 23 p 929
 Drain Cleaner, Kohler Adjustable, July 1 p 78
 Drainer, Silver and Dish, Combined, Royal,* Oct. 7 p 1133
 Drafting Table, Washburn,* Oct. 21 p 1238
 Draw Bench, Standard Special,* Nov. 4 p 1390
 Draw Knife, Adjustable Auto Body,* Sept. 30 p 1045
 Drawback Regulations, Dec. 30 p 1939
 Drawback Rulings on Shipments to the Philippines, Aug. 26 p 639
 Drawings of a Technical Character, Copyright in July 8 p 122
 Dreses Radial Drill, New 36-in.,* Dec. 30 p 1931
 Dreses Universal Monitor Lathe, Improved,* Oct. 14 p 1154
 Dreses Universal Monitor Lathe, New,* Nov. 25 p 1639
 Drift to the Cities, Sept. 30 p 1036
 Driggs-Seabury Extensions, July 1 p 33;
 Oct. 7 p 1065
 Drill:
 American Sensitive Radial,* Sept. 30 p 983
 Aurora 20-in. Upright,* Nov. 18 p 1562
 Barnes 24-in. All-Geared,* Oct. 28 p 1317
 Barnes Heavy Duty 22½-in. Gang,* July 8 p 112
 Barnes Special Horizontal Radial,* Dec. 23 p 1889
 Cincinnati-Bickford 20-in. Gang,* Oct. 28 p 1307
 Cincinnati High Speed Drilling and Tapping, Sept. 9 p 761
 Dreses Radial, 36-in.,* Dec. 30 p 1931
 Fosdick Horizontal, Drilling, Milling and Boring,* Nov. 11 p 1475
 Kern Drilling and Tapping,* Sept. 23 p 909
 Knight, Drilling and Milling, No. 2,* Aug. 5 p 391
 Leland High Speed Sensitive,* Dec. 2 p 1699
 National Multiple Spindle,* July 8 p 93
 Latest Gang Radial, Drilling and Tapping,* Dec. 2 p 1714
 Noyes No. 10, Post,* Sept. 9 p 821
 Paragon Flat Taper Shank, Twist,* July 22 p 308
 Pratt & Whitney High Power,* Aug. 12 p 471
 Sibley High Speed,* Oct. 28 p 1306
 Rockford Motor-Driven Sensitive,* Sept. 2 p 705
 Rockford 10-in. Bench,* Nov. 4 p 1393
 Sebco, Extension,* July 29 p 372
 Simple Electric Hand, No. 0,* July 15 p 183
 Willey Motor Driven Sensitive,* Sept. 9 p 781
 Yankee Double and Single Speed, Breast,* Oct. 21 p 1295
 Driller, Electrically Driven Well,* July 22 p 250
 Drill Heads, Imitation Osborne, Aug. 19 p 600
 Drill Table, Robertson Tilting,* Aug. 12 p 477
 Drives, Electric, and Electric Control in Rolling Mills, Nov. 18 p 1550
 Drop Hammers, Two New Peck Poppet,* July 29 p 323
 Dropper, Seed, Harriman,* Nov. 25 p 1689
 Dry Air Blast Pressure Record, Gayley,* Oct. 21 p 1233
 Dry Blast in Great Britain, Gayley, Sept. 16 p 855; Oct. 7 p 1089

Dudley, Dr. Charles B.:
 Failures in Engineering Constructions, July 1 p 21
 Dudley, Dr. P. H.:
 Piping and Segregation in Steel Ingots,* Dec. 23 p 1880
 Steel Rail Defects,* July 22 p 266
 Dunbar Furnace Improvements, Nov. 4 p 1395
 Duncan, M. M.:
 Compensation to Workmen for Accidental Injuries, Sept. 30 p 994
 Dunderland Iron Ore Company, Nov. 25 p 1647
 Dunderland Iron Ore Concentrates, July 15 p 187
 Duplex Feather Keyseating Machine, Chicago,* Nov. 4 p 1387
 Duplex Metals Company:
 Copper Clad Steel, Dec. 2 p 1711
 Duplex Process and the Steel Scrap Situation, Sept. 23 p 930
 Duquesne Furnace, Largest Day's Output for a Blast Furnace, Sept. 30 p 999
 Duty on Pliers, Nippers, &c., Proposed, July 1 p 32
 Dynamiting Outrages, Suppression of, Nov. 18 p 1574

E.

East Indian Iron and Steel Plant,* Sept. 23 p 926
 Eben Hardware Mfg. Company, Aug. 26 p 670
 Economy in the Blast Furnace, Fuel, Nov. 4 p 1398
 Edge Level, Straight, Leonhart's Improved,* Sept. 2 p 749
 Edger, Curbing and Concrete Cutter, Iowa,* July 29 p 373
 Edison Purchasing Agents, Association of, Sept. 9 p 813
 Editorials:
 Abuse of American Export Trade, Dec. 16 p 1840
 Accumulation of Material Supplies, Oct. 14 p 1167
 Advancing Machine Tool Prices by Monthly Steps, Oct. 14 p 1166
 Allegheny County's Position in the Steel Trade of 1908, Sept. 9 p 782
 Alluring Field of Industry, Aug. 12 p 487
 American Automobile Output for 1910, July 8 p 125
 Argument for the Closed Shop, Dec. 30 p 1937
 Attempts to Buy Machinery Directly, Dec. 16 p 1841
 Automobile Industry Affecting Wages, Oct. 7 p 1083
 Automobile Invasion of Eastern Labor Fields, Dec. 2 p 1727
 Bogus Machinery Dealers, Dec. 30 p 1937
 Boiler Explosions Seldom Caused by Bad Steel Plates, Aug. 26 p 636
 British Rules Governing Wet Grinding, Dec. 23 p 1892
 Buenos Aires Exposition, Nov. 11 p 1493
 Canada's Expanding Steel Industry, July 1 p 30
 Canadian Manufacturers and Municipal Equipment Orders, Nov. 4 p 1408
 Car Shortage Calls for the Co-Operation of Shippers, Sept. 30 p 1003
 Changed Distribution of Iron and Steel Demand, July 1 p 30
 City's Effort to Get Foreign Business, Dec. 2 p 1728
 Combustion Engine and the Machinery Trade, Dec. 23 p 1891
 Commissioners' Demurrage Rules, Oct. 28 p 1325
 Commissioners' Demurrage Rules, Dec. 2 p 1726
 Compensation for Industrial Accidents, Dec. 2 p 1726
 Consolidations and the Sherman Act, Nov. 25 p 1644
 Constant Comparison of Costs, Aug. 19 p 558

Editorials:

Copper Situation, July 15 p 196
 Corporations May Again Become Partnerships, Dec. 16 p 1842
 Cost Systems in the Navy, Nov. 4 p 1407
 Demurrage on Delayed Shipments, Aug. 5 p 410
 Details of Limits in Shop Drawings, Dec. 23 p 1892
 Developing New Demand for Machinery, Nov. 4 p 1407
 Distribution of Pay Envelopes in Factories, July 15 p 197
 Duplex Process and the Steel Scrap Situation, Sept. 23 p 930
 Effects of the German-American Patent Treaty, Sept. 23 p 931
 Engine Lathe Standardized, Dec. 16 p 1842
 Fire Precautions in Cold Weather, Nov. 11 p 1493
 Foundry Employers' Movement, Nov. 18 p 1568
 Freight Rates and the Tariff, Sept. 23 p 931
 "Funnelless Ship," Not Arrived, July 15 p 197
 Government Help for Foreign Trade, Aug. 12 p 487
 Great Crop Outlook, July 15 p 196
 Growing Interest in Waterways, Dec. 9 p 1785
 High Prices and the Export Trade, Oct. 7 p 1082
 How the Ironmaster Has Promoted Peace, July 8 p 124
 Increase in Foundry Iron Production, Nov. 11 p 1493
 Increased Cost of Living, Dec. 30 p 1936
 Industrial Outlook in Great Britain, Oct. 28 p 1324
 Industrial Training in Small Towns, Sept. 9 p 782
 International Rail Pool Incident, Dec. 23 p 1890
 Is Railroad Equipment Deficient? Oct. 21 p 1247
 Kansas City Rate Case, Sept. 2 p 706
 Labor Conditions in Country Towns, Oct. 21 p 1247
 Lake Ore Movement in 1909, Aug. 26 p 634
 Latent Demand for Machinery, Sept. 2 p 706
 Leaf from History, July 29 p 334
 Machine Tool Costs and Efficiency, Nov. 4 p 1406
 Machine Tool Prices Advancing, Nov. 25 p 1646
 Maximum Tariff Clause, Aug. 26 p 635
 Mesaba Range the Key to the Lake Ore Situation, Dec. 23 p 1891
 Motor Car Paying Its Debt to Machine Tools, Dec. 9 p 1786
 Naval Repair Ship's Publicity Usefulness, Nov. 25 p 1645
 Navy as an Industrial School, July 29 p 336
 New Demand for Special Machinery, Dec. 2 p 1727
 New Iron and Steel Making Capacity, Aug. 19 p 556
 New Purpose of the Premium System, Aug. 5 p 411
 New Record in Steel Making Pig Iron, Sept. 9 p 783
 New Slides to Workmen's Compensation, Oct. 7 p 1084
 New Tariff and Iron Ore Imports, Sept. 30 p 1004
 Noiseless Machine Shop, Nov. 18 p 1570
 Outlook for Copper, Oct. 14 p 1166
 Panama Canal, July 1 p 31
 Passage of the Tariff Bill, Aug. 5 p 410
 Percentage of Bessemer Lake Ores, Dec. 16 p 1841
 Personal Factor in Industrial Operations, Sept. 16 p 852
 Pig Iron Supply and Demand, Dec. 9 p 1784
 Place of 1909 in Pig Iron Production, Dec. 16 p 1840

Editorials:

- Postage on Magazines and Trade Papers, Dec. 30 p 1936
- Potentiality of Small Streams, Nov. 25 p 1645
- Present Scarcity of Machine Tools, Nov. 25 p 1645
- Proposed National Demurrage Rules, July 22 p 270
- Public Power Service Precedent, July 22 p 271
- Publisher's Notice, Nov. 25 p 1644
- Rebuilding of Iron and Steel Stocks, Sept. 30 p 1002
- Reciprocity with Hydraulic Power Plants, Aug. 19 p 557
- Recovery in the Foundry Trade, Sept. 16 p 854
- Remarkable Swings in Pig Iron Output, Oct. 14 p 1166
- Running Balance of Revolving Parts, Nov. 18 p 1569
- Self-Help in Fighting Tuberculosis, Aug. 19 p 557
- Semi-Centennial of a Militant Union, Aug. 12 p 486
- September Balance of Trade, Oct. 28 p 1326
- Shippers in the Dark Regarding New Demurrage Rules, Oct. 7 p 1082
- Shop Scrap Heap and Its Lesson, Nov. 18 p 1568
- Simple Machines as Special Tools, Nov. 11 p 1492
- Some Results of a Premium System, July 8 p 125
- Speculative Buying, Aug. 12 p 486
- Steel Business of 1909 and Its Distribution, Aug. 5 p 412
- Steel Corporation Earnings and New Work, Nov. 4 p 1406
- Steel Industry and Concrete Reinforcement, Aug. 26 p 634
- Steel Making Pig Iron in 1909, July 29 p 334
- System Necessary to Reduce Accident Costs, Sept. 9 p 783
- Tariff on Scrap Not Intended for Melting, Nov. 18 p 1569
- Tariff Wars Between Nations, Sept. 16 p 852
- Time Saving in Shop Operations, Sept. 2 p 707
- Trade Regulation, Nov. 11 p 1492
- Trade Schools in Reformatory Institutions, Oct. 14 p 1167
- Tribute to Chairman Gary, Oct. 21 p 1246
- Uncovered Concrete Floor, Dec. 9 p 1784
- Valedictory of David Williams, Sept. 23 p 930
- Watching for Wasteful Costs, Oct. 21 p 1246
- Will Foreign Machine Tools Invade America? Sept. 16 p 853
- Education, Industrial, Oct. 14 p 1169
- Egg Beater, Cream Whip and Mayonnaise Mixer, Holt's Improved Dover, Nov. 11 p 1537
- Egg Beater, Whiplt, Oct. 7 p 1133
- Eichhoff, Prof. E. R.:
Metallurgy of the Electric Steel Furnace, Aug. 5 p 388
- Elder's Poems, Cyrus, Dec. 2 p 1735
- Electric and Gas Portables, Sept. 30 p 1044
- Electrical Automatic Railroad Safety Signal Company:
New Cab Signal, Sept. 23 p 909
- Electrical Engineers, Patent Specification Library Given to the, Sept. 9 p 784
- Electrical Engineers, Rolling Mill Discussions by, July 8 p 128
- Electrical Equipment in the Mesta Pattern Shop, July 1 p 14
- Electrical Progress in the British Iron Industry, Dec. 2 p 1722
- Electrical Show, New York, Oct. 21 p 1244
- Electrically Driven Merchant Mill, July 1 p 12
- Electric Control for Rolling Mill Motors, Sept. 9 p 778
- Electric Controller & Mfg. Company Mill Type Starters, Aug. 12 p 485
- Rail Handling Magnets, Aug. 5 p 409
- Electric Drives and Electric Control in Rolling Mills, Nov. 18 p 1550
- Electric Furnace for Steel Castings, Aug. 5 p 386
- Electric Furnaces at the Sault, Oct. 14 p 1190
- Electric Pig Iron Experiments in Sweden, Aug. 5 p 403
- Electric Portable Lamp, Oct. 7 p 1132
- Electric Power Problems in Steel Works, Sept. 9 p 764
- Electric Refining of Steel, Aug. 19 p 542
- Electric Shaft Furnace, Pig Iron Production in an, Sept. 16 p 831
- Electric Smelting in Sweden, Aug. 19 p 545
- Electric Smelting, Swedish and Norwegian, Dec. 2 p 1703
- Electric Steel Furnace, Metallurgy of the, Aug. 5 p 388
- Electric Welding in Steel Goods, Sept. 2 p 748
- Electrician's Bit, Mephisto, July 1 p 76
- Electro-Cementizing, Nov. 11 p 1484
- Electrochemical Society's Meeting, Nov. 4 p 1414
- Elevator, Revolving Portable, New York, Oct. 28 p 1368
- Emergency Exit Door Lock, Clark's, Nov. 4 p 1457
- Emery Hardware Company's New Catalogue, Sept. 30 p 1044
- Emery Wheel Stand, Hassel Motor-Driven, Dec. 9 p 1776
- E-M-F Company:
Automobile Company's Expansion, Aug. 19 p 577
- Empire Steel & Iron Company:
Enlargements, Oct. 28 p 1315
- New Crane Furnace, Sept. 16 p 846
- Employees, Tennis Court for, July 1 p 63
- Employees, Welfare of, Dec. 16 p 1819
- Employment Bureau, Newark Municipal, Dec. 16 p 1848
- Enameling of Cast Iron Articles, Dec. 23 p 1877
- Enameled Ware, Aluminum:
Ermine, Oct. 14 p 1213
- Sterling, Sept. 23 p 970
- Engine and Gas Producer, New York Gas, Nov. 4 p 1384
- Engine Building Seventy-five Years ago, Nov. 11 p 1500
- Engine:
Cooper, Aug. 5 p 413
- Cooper Gas, Oct. 14 p 1156
- Farm Pump, Aug. 26 p 672
- Fulton's Clermont, Sept. 23 p 905
- Gas in Central Station Work, July 22 p 256
- Governing Rolling Mill, Dec. 23 p 1886
- Murray Laboratory, Dec. 23 p 1869
- Original Avery, Sept. 30 p 1006
- Report on Alcohol, Nov. 18 p 1564
- Self-Starting Gas, Aug. 5 p 397
- Slick Type of Blowing, Dec. 9 p 1773
- Stevens-Duryea Testing, Sept. 23 p 903
- Titusville Gas, Dec. 16 p 1817
- Tower Gas, Oct. 7 p 1081
- Engineer, Eminent Scotch and a Great American, Nov. 4 p 1383
- Engineering Constructions, Failures in, July 1 p 21
- Engineering, Profession of, Dec. 9 p 1774
- Engineers Discuss Contracts, Pittsburgh, Sept. 9 p 766
- Engineers' Convention, Mechanical, Dec. 9 p 1788
- Engineers' Handbook, Erie, July 22 p 291
- English Cutler Men, Group of Aged, Aug. 12 p 519
- English Type Wire Stranding Machine, New, Sept. 9 p 762
- Ensilage Cutter, Self-Feed, Ohio Monarch, July 15 p 238
- Ensley, Ala., New \$3,000,000 Wire Plant Near, Nov. 18 p 1590
- Ensley Blast Furnace No. 3, Hoisting Plant at, Sept. 2 p 704
- Enterprise Multiple Strainer, July 8 p 95
- Equipment Orders, Railroad, Sept. 2 p 708; Nov. 25 p 1650; Dec. 2 p 1728
- Erie City Boilers, Large Order for, July 1 p 36
- Erie City Iron Works, New Product of the, Sept. 16 p 856
- Erie City Vertical Water Tube Boiler, Aug. 19 p 538
- Erie Engineers' Handbook, July 22 p 291
- Erie Railroad Trying a New Cab Signal, Sept. 23 p 909
- Error in Bonded Smelting Provision of New Tariff Law, Oct. 21 p 1249
- Escanaba Furnace and the Carnegie Steel Company, Nov. 18 p 1570
- Establishment of Stichter Hardware Company, Sept. 23 p 962
- Excavator, Van Buren, Oct. 7 p 1055
- Exchange, Merchants and Manufacturers, of New York, Nov. 25 p 1687
- Exchanging Trade Journals, Merchants, Aug. 26 p 664
- Exhausters, New Buffalo, Nov. 18 p 1554
- Exhibit, Hudson-Fulton Historical, Sept. 23 p 932
- Exhibition Warehouse, Chicago's Machinery, Oct. 21 p 1224
- Exit Bolt, Russwin Panic, Sept. 30 p 1044
- Expansion Bolt, Brohard Lag Screw, Dec. 16 p 1839
- Expenses, Cutting Down, Aug. 12 p 518
- Export Trade, Abuse of American, Dec. 16 p 1840
- Exports and Imports of Iron and Steel, May, July 8 p 131; June, Aug. 5 p 416; July, Sept. 23 p 915; August, Oct. 28 p 1323; September, Nov. 11 p 1491; October, Dec. 9 p 1786
- Exposition:
Berlin, American, July 15 p 176; Aug. 26 p 653; Sept. 2 p 729
- Brussels, Aug. 5 p 413
- Buenos Aires, Nov. 11 p 1493; p 1495
- Buffalo Manufacturers' Club Industrial, Oct. 21 p 1267
- Free Space at Argentine, Nov. 18 p 1574
- Express Companies, Probing the, Oct. 7 p 1130; Nov. 4 p 1447; Nov. 11 p 1528
- Express Wagon, Iron, Aug. 5 p 456
- Extension Drills, Sebco, July 29 p 372
- Extras, New Carnegie Card of Steel, Sept. 16 p 871
- F.
- Factory Construction, Reinforced Concrete for, Oct. 21 p 1234
- Factory Ventilation, Compulsory, July 8 p 94
- Failure, Interesting Axle, July 8 p 123
- Failures in Engineering Constructions, July 1 p 21
- Fair, Fort Plain Street, Sept. 16 p 888
- Fales & Jenks Rotary Fire Pump, New, Sept. 23 p 910
- Fall Business in Stoves and Ranges, Working Up, Oct. 7 p 1122
- Fall Business, What Hardwaremen are Doing to Stimulate, Sept. 30 p 1032
- Fall Opening and Cooking Exhibition, Nov. 25 p 1679
- Fan, New High Speed Turbine, Sept. 16 p 842
- Fans, Contrast in Mine, Nov. 25 p 1674
- Farmers' Hall of Fame, Illinois, Dec. 9 p 1789
- Farmers, Selling Stock to, Incorporation and, Aug. 5 p 446
- Farm Pump Engine, Aug. 26 p 672
- Fasteners, Shutter, Zimmerman Improved, July 29 p 371
- Fastener, Window, Security, July 22 p 309
- Fawcus Axle Lathes for Gary Works, Oct. 14 p 1154

- Feather Dusters, Pillar Shelves for,*
Nov. 25 p 1682
- Feed, New Wells Screw Machine Wire,*
Nov. 25, p 1641
- Fence, American, New Style of, Design,
943
- Fence Machine, Battle Creek Wire,*
Dec. 9 p 1777
- Ferguson, Louis A.:
Centralization of Electric Power Sup-
ply, Sept. 2 p 702
- Ferris, Walter:
Bucyrus Locomotive Pile Driver,*
Dec. 23 p 1872
- Ferracute Can-Soldering Machines,*
Aug. 26 p 620
- Ferracute Double Crank Toggle Drawing
Press, New,* Oct. 7 p 1069
- Ferroalloy Duties, Aug. 26 p 627
- Ferrotungsten Powder, Aug. 26 p 629
- Fiber Shipping Case, Walpole,* Nov. 4
p 1456
- Field & Co., Alfred:
Proposed Duty on Pliers, Nippers, &c.,
July 1 p 32
- Figures and Letters, Steel, "Very Best,"
Oct. 7 p 1131
- Figuring Percentage of Profit, Sept. 16
p 888
- File, Elliott Cresson Medal for the Ver-
naz Milling, Sept. 30 p 997
- Filter and Cooler, Water, Suco Pure,*
Aug. 19 p 600
- Filters at Gary, Burt Oil,* Sept. 9 p 767
- Filters for Machinery, Moeller Air,*
Nov. 4 p 1402
- Firearms, New Pieper,* Aug. 12 p 526
- Firebrick Freight Rate Ordered Re-
duced, Dec. 23 p 1894
- Fire Insurance and Prevention as Re-
lated to Credit, Nov. 4 p 1446
- Fire Insurance Rates, Reducing,* Aug.
26 p 661
- Fireless Cookers:
I-X-L, No. 1,* Aug. 26 p 671
Silver,* Aug. 5 p 455
- Fire Precautions in Cold Weather, Nov.
11 p 1493
- Fire Protection System, Duplex High
Pressure, Oct. 7 p 1075
- First American made Bessemer Steel,
Oct. 21 p 1238
- First Blast Furnace to Make 100 Tons a
Day, Nov. 11 p 1498
- First Year of the Swedish State Ore
Contract, Sept. 2 p 710
- Firth Steel, Aug. 26 p 629
- Fish, E. R.:
Modern Boiler Shop,* Dec. 9 p 1759
- Fishing Tackle Cabinet,* Nov. 25 p 1682
- Fitch, William O., Hardware Store of,*
Sept. 16 p 883
- Fixtures, Store, Home Made,* Nov. 25
p 1682
- Flame for Cutting Metals, Oxygen, Sept.
2 p 711
- Flat Ware, Florette Pattern,* Aug. 12 p
525
- Flint, Wm. F.:
Gas Engine in Central Station Work,*
July 22 p 256
- Float, Industrial Parade, and Model
Hardware Store,* Nov. 11 p 1533
- Floating Reamer Holder for Boring
Mills, Colburn,* Nov. 25 p 1638
- Floor Scraper, Ideal Hardwood,* Sept.
9 p 820
- Floor, Uncovered Concrete, Dec. 9 p
1784
- Flue Cutting Machine, Ryerson,* Dec.
9 p 1765
- Fluorspar, Barium and Sulphur in,*
Aug. 5 p 392
- Fluorspar in 1908, Production of, Aug.
19 p 563
- Fluorspar in Iron and Steel Making,
July 1 p 40
- Flyer, Steel,* Sept. 2 p 750
- Fly Wheels in Connection with Electri-
cally Operated Rolling Mills,
Function of, July 22 p 251
- Folding Sled, Little Giant,* Aug. 5 p
452
- Folding Steel Wire Mat, Standard, Sept.
9 p 820
- Foot Bros.' Style D Speed Reducer,*
July 29 p 326
- Foot-Lamond Hot Blast Stove, New,*
Oct. 14 p 1159
- Foord, John:
Railroad Building in Asia, Sept. 2 p
694
- Foot, Homer & Co.'s Store,* Aug. 26,
p 666
- Forbes, Benjamin P.:
Cultivating Trade with Advertisers,
Nov. 18 p 1589
- Forder, B. J. & Sons, Ltd.:
Rotary Cement Kilns, Dec. 30 p 1938
- Fore River Shipbuilding Company:
Submarine Trials, Oct. 7 p 1079
- Foreign Business, City's Effort to Get,
Dec. 2 p 1728
- Foreign Machine Tools, Will They In-
vade America? Sept. 16 p 853
- Foreign Trade, Government Help for,
Aug. 12 p 487
- Forged Steel Wheel Company Will Build
a Steel Plant, Aug. 12 p 483
- Forgings, Production in 1908, Sept. 2 p
703
- Fort Plain Street Fair, Sept. 16 p 888
- Fosdick Horizontal Boring, Drilling and
Milling Machine, New,* Nov. 11
p 1475
- Founders' Association, National, Oct.
21 p 1233; Nov. 11 p 1486; Nov.
18 p 1566
- Foundries, Prevention of Accidents in,*
July 22 p 252
- Foundry Bucket, Novelty,* Sept. 2 p 752
- Foundry Contracts and Tool Makers,
Cincinnati, Sept. 30 p 1005
- Foundry Employers' Movement, Nov. 18
p 1568
- Foundry Iron Production, Increase in,
Nov. 11 p 1493
- Foundry, Modern Steel Roll, Aug. 19 p
562
- Foundry Foremen's Meeting, Philadel-
phia, Sept. 23 p 933
- Foundry Trade, Recovery in the, Sept.
16 p 854
- Foundrymen Preparing for the Con-
vention, Pittsburgh, Dec. 16 p 1823
- Foundrymen's Association, American,
Oct. 21 p 1223; Dec. 2 p 1700;
Dec. 23 p 1875
- Foundrymen's Association, British, Aug.
19 p 537
- Foundrymen's Association, Detroit Con-
vention of American, Oct. 21 p
1223
- Foundrymen's Association, Newark, Oct.
14 p 1155; Dec. 9 p 1786
- Foundrymen's Association, Philadelphia,
Sept. 9 p 775; Oct. 14 p 1165;
Nov. 11 p 1470; Dec. 9 p 1795
- Foundrymen's Association, Pittsburgh,
Sept. 16 p 857; Dec. 9 p 1795
- Fox Brothers & Co.:
Polar Flaming Arc Lamp,* Dec. 9 p
1782
- Fox Miller Job, Interesting,* July 8 p
104
- Frame, Coping Saw, Irving, No. 157,*
Sept. 2 p 751
- Frame, Window Screen, Superior,* Oct.
28, p 1369
- Frameless Insect Screen,* Sept. 2 p 751
- Frames, Hack Saw, Goodell-Pratt New,*
Sept. 16 p 895
- France, Hardware Manufacture in, July
1 p 62
- France, Steel Production in, Nov. 4 p
1389
- Franklin 1910 Motor Cars, Dec. 9 p 1779
- Fraser & Chalmers, Ltd.:
Boilers Fired with Coal Dust, Nov. 4
p 1383
- Fraser Lock Bar Pipe Company, Sept.
16 p 872
- Freight Bills, Checking Up,* Aug. 19 p
589
- Freight Rates:
Changes, Dec. 2 p 1716
Commissioners' Demurrage Rules,
Oct. 28 p 1325; Dec. 2 p 1726
Demurrage on Delayed Shipments,
Aug. 5 p 410
Kansas City Rate Case, Sept. 2 p 706
- Freight Rates:
Pig Iron Makers Attack Coke Rates,
Aug. 26 p 658
Proposed National Demurrage Rules,
July 22 p 270
Reduction on Firebrick, Dec. 23 p
1894
Reductions, Sept. 23 p 909
Shippers in the Dark Regarding New
Demurrage Rules, Oct. 7 p 1082
Freight Rates and the Tariff, Sept. 23
p 931
Freight Transportation Bureaus, Oct. 28
p 1354
Freight Transportation, Economy in,
Nov. 4 p 1443
French Iron and Steel Works Directory,
Oct. 28 p 1323
French Pump, Cordeaux,* July 15 p 238
French Tariff Situation, Dec. 30 p 1940
Friedlander, E.:
Electric Driven Rolling Mills, July 8
p 129
Fry, Lawford H.:
Heat Treatment of Spring Steel,*
Oct. 7 p 1070
Fuel Economy in the Blast Furnace,
Nov. 4 p 1398
Fulwider, H.:
Tempering Temperatures of Tools,
Dec. 2 p 1735
Fulton's Clermont, Engine of,* Sept. 23
p 905
"Funnelless Ship" Not Arrived, July
15 p 197
Furnace:
Additional Pig Iron Capacity, July 29
p 340
Bailey Patent, Nov. 18 p 1555
Distribution in the United States in
1908,* Oct. 28 p 1308
Electric at the Sault, Oct. 14 p 1190
Electric for Steel Castings,* Aug. 5 p
386
Fuel Economy in Blast, Nov. 4 p 1398
Heroult, in Mexico, Nov. 4 p 1391
Internally Fired Helical, Oct. 14 p
1168
Largest Day's Pig Iron Output, Sept.
30 p 999
Metallurgy of Electric Steel, Aug. 5 p
388
New Crane Iron Works, Sept. 16 p 846
Pig Iron Production in an Electric
Shaft,* Sept. 16 p 831
Pittsburgh Blast, July 15 p 194
Projected at Bay City, Mich., Char-
coal, Sept. 16 p 841
Records, Best Blast, Oct. 14 p 1155
Rockwell Inclinable Rotary,* Sept. 2 p
698
Rogers-Brown Iron Company to Build
Two, Dec. 30 p 1938
Ruhmann's Patent Portable,* Oct. 14
p 1214
St. Louis Blast, Nov. 4 p 1382
Youngstown Sheet & Tube Company's
New Blast, Sept. 23 p 934

G.

- Gabriel, J., & Co.'s Hardware Store,*
Oct. 7 p 1124
- Galvanized Sheet Market, Break in Brit-
ish, Aug. 12 p 471
- Gandy Belting Company's New Build-
ing, Sept. 2 p 711
- Gang Radial Drilling and Tapping Ma-
chine,* Dec. 2 p 1714
- Garden Cultivator, Hand, Norcross Im-
proved,* Sept. 2 p 752
- Gardner No. 7 Dick Grinder,* Nov. 25 p
1631
- Gardner Under-Belted Dick Grinder
Drive,* Aug. 26 p 617
- Garland Corporation's Financial State-
ment, Sept. 9 p 808
- Garry Iron & Steel Company, Dec. 23 p
1898; Dec. 30 p 1939
- Gary, Ind.:
American Sheet & Tin Plate Company
to Expend \$4,500,000, Dec. 16 p
1843
Another Great Addition, July 8 p 145
Billet Mill,* Oct. 21 p 1226
Building an Industrial City,* July 1
p 1

Gary, Ind.:

- Burt Oil Filters at,* Sept. 9 p 767
 Fawcus Axle Lathes for, Oct. 14 p 1154
 Great Future, Dec. 2 p 1715
 Koppers By-Product Coke Ovens at, July 1 p 29
 New Construction at, Aug. 12 p 488
 Progress at, Nov. 18 p 1571
 Gary District Real Estate Activity, Nov. 25 p 1650
 Gary, Elbert H.:
 In England, Sept. 9 p 786
 Iron and Steel Manufacturers Do Honor to,* Oct. 15 p 1217
 Tribute to, Oct. 21 p 1246
 Gas and Electric Portables, Sept. 30 p 1044
 Gas Engine:
 Cooper,* Oct. 14 p 1156
 In Central Station Work,* July 22 p 256
 Self-Starting, Aug. 5 p 397
 Titusville,* Dec. 17 p 1817
 Gas Heating Stove, Hemp,* July 22 p 310
 Gases, Experiments on the Case-Hardening of Steel by, July 8 p 120
 Gasoline Enging Pumping Outfit, Portable,* Aug. 5 p 389
 Gasoline Sadiron, Self-Heating, Ideal,* Aug. 5 p 453
 Gas Producer:
 And Fuel Oil in the Navy, Dec. 23 p 1875
 Hill Anthracite,* Dec. 2 p 1718
 Hill Bituminous,* Nov. 11 p 1480
 Tests, Nov. 11 p 1497
 Thompson Suction,* Aug. 12 p 478
 Westinghouse Producer in a Double Role, Sept. 9 p 780
 Gauge:
 Standard Pressure Alarm,* Sept. 9 p 774
 Taper,* Sept. 9 p 822
 Telescoping Inside,* Sept. 9 p 822
 Gayley Dry Air Blast:
 German Plan for Using, Dec. 2 p 1723
 In Germany, July 1 p 38
 In Great Britain, Sept. 16 p 855; Oct. 7 p 1089
 Pressure Record,* Oct. 21 p 1233
 Gayley, James, and Henry Bell:
 Eminent Scotch and a Great American Engineer,* Nov. 4 p 1383
 Gear:
 Cincinnati Automatic Cutting Machines,* Sept. 30 p 990
 Lee's Hobber,* July 29 p 330
 Melville-Macalpine Steam Turbine Reducing,* Dec. 9 p 1766
 Testing Machine,* Aug. 26 p 613
 Geler, Frederick A.:
 Industrial Education, Oct. 14 p 1169
 Gelsen-Kirchen Company:
 Largest Individual Steel Plant in Europe, Dec. 16 p 1843
 General Electric Company:
 Mill Motors,* Oct. 7 p 1062
 Oil Tempering Bath,* Oct. 28 p 1311
 Tempering Temperatures of Tools, Dec. 2 p 1735
 General Motors Company, Dec. 9 p 1765
 Generator and Oil Burner, Oil Blue Flame Distillate,* Nov. 11 p 1537
 German-American Patent Treaty, Effects of the, Sept. 23 p 931
 Germany:
 American Exposition at Berlin, July 15 p 176; Sept. 2 p 729
 Gayley Dry Air Blast, July 1 p 38
 Gelsen-Kirchen Company, Dec. 16 p 1843
 International Congress of Mining and Metallurgy, Nov. 4 p 1409
 Iron Market, July 22 p 286; Aug. 5 p 432; Sept. 2 p 724; Sept. 23 p 945; Sept. 30 p 1019; Oct. 14 p 1186; Oct. 28 p 1343; Nov. 4 p 1425; Nov. 11 p 1510; Nov. 18 p 1587; Nov. 25 p 1664; Dec. 2 p 1748; Dec. 9 p 1802; Dec. 23 p 1906; Dec. 30 p 1951
 Iron Workers' Wages, Aug. 26 p 611
 Krupp Company, Largest Chilled Roll, July 28 p 327

Germany:

- Methods in Manufacture of Cast Iron Pipe,* Dec. 16 p 1820
 Moeller Air Filters for Machinery,* Nov. 4 p 1402
 Plan for Using Dry Air Blast, Dec. 2 p 1723
 Steel Syndicate Participation, Oct. 28 p 1333
 Stuckenholz, Ltd., Ludwig: Electric Rotary Crane,* Sept. 2 p 700
 Suspension Railways in Iron Works,* Aug. 26 p 609
 Tax Burdens of Industry, July 15 p 217
 Thirtieth Anniversary of Basic Bessemer Steel, Oct. 21 p 1252
 Getting Business Through the Mail,* Sept. 2 p 739
 Getting Ready for Holiday Trade, Nov. 25 p 1680
 Gillette, Geo. M.:
 Workmen's Compensation Laws, Oct. 28 p 1312
 Glass Cutter, Monitor Magazine, No. 200,* Nov. 11 p 1538
 Glass, Shears,* Aug. 12 p 525
 Glass, Window, List Prices on, July 8 p 158
 Gliderole Coaster,* Sept. 23 p 970
 Globe Rolling Mill Company Acquired by Bourne-Fuller Company, Dec. 30 p 1940
 Go-Carts, Doll, Sleepers and Carriages, July 15 p 237
 Go-Carts, Wagner Quick-Folding, Nov. 4 p 1455
 Godcharles Company, F. A., Sept. 9 p 815
 Golden-Anderson Valve Specialty Company:
 Pressure Reducing Valve,* Aug. 19 p 553
 Golden Cushioned Triple-Acting Non-return Valve,* July 8 p 113
 Goldschmidt Thermit Company:
 Chromium by Thermit Process, Dec. 30 p 1933
 Repairing Steel and Iron Rolls,* Dec. 16 p 1838
 Goodell Company:
 Increased Water Power for, Aug. 19 p 590
 Power Plant, Nov. 4 p 1447
 Goods Called for Not Carried in Stock, Sept. 23 p 961
 Goods Returned, Sept. 30 p 1037; Nov. 4 p 1453
 Good versus Cheap Hardware, Nov. 4 p 1451
 Gorton No. 2-B Cutting-On Machine,* Sept. 30 p 992
 Government and the Unemployed, National, Nov. 4 p 1388
 Government Help for Foreign Trade, Aug. 12 p 487
 Governing Rolling Mill Engines,* Dec. 23 p 1886
 Grain Bin, Steel, Bushnell,* July 29 p 374
 Grant Rivet Spinning Machines, New,* Sept. 16 p 851
 Graphite Production in 1908, Sept. 23 p 917
 Graphite, Unctuous Acheson,* July 15 p 198
 Grass Catcher, Richards Good Sense,* July 8 p 166
 Great Britain:
 Break in Galvanized Sheet Market, Aug. 12 p 471
 Electrical Progress in Iron Industry, Dec. 2 p 1722
 Foundrymen's Association, Aug. 19 p 537
 Gayley Dry Blast, Sept. 16 p 855; Oct. 7 p 1089
 High Priced Sheffield Steel and the New Duty, Aug. 12 p 489
 Industrial Outlook, Oct. 28 p 1324
 Iron and Steel Exports in 1909, Aug. 19 p 540
 Iron and Steel Imports Increase, Oct. 7 p 1065
 Iron and Steel Institute, Sept. 9 p 802

Great Britain:

- Iron Market, Aug. 19 p 577
 Iron Ore and Coal Production in 1908, Sept. 2 p 717
 Iron Trade Waiting, Dec. 2 p 1757
 London Ironmonger Fifty Years Old, Sept. 30 p 1004
 Low Shipbuilding Costs, Aug. 12 p 477
 North British Locomotive Company, Dec. 30 p 1933
 Production of Pig Iron for the First Half of 1909, Dec. 30 p 1940
 Public Supply of Electric Power, Aug. 19 p 577
 Steel Consolidation, July 15 p 203
 Great Lakes Engineering Works at Ash-tabula, Oct. 21 p 1238
 Green Fuel Economizer Company:
 Improving Heat Transmission in Air Heaters, Aug. 26 p 628
 Greiner Riveting Machine,* Nov. 18 p 1563
 Grinder:
 Bath Duplex Internal,* Sept. 30 p 979
 Besly Double Spiral Disk,* Aug. 5 p 397
 Besly Horizontal Disk,* Sept. 2 p 685
 Brown & Sharpe Hob Attachment,* July 29 p 328
 Brown & Sharpe Universal Head,* Dec. 2 p 1708
 Bryant Chucking,* Nov. 4 p 1379
 Double New Yankee Drill,* Dec. 2 p 1717
 Gardner No. 7 Disk,* Nov. 25 p 1631
 Gardner Under-Belt Disk,* Aug. 26 p 617
 New Ransom Disk,* Oct. 14 p 1158
 Norton Camshaft,* Dec. 23 p 1878
 Pratt & Whitney Vertical Surface,* Dec. 30 p 1926
 Robinson,* Sept. 2 p 701
 Unique Lawn Mower,* Aug. 26 p 670
 Yankee No. 1 Surface,* Nov. 4 p 1389
 Grinding, British Rules Governing Wet, Dec. 23 p 1892
 Grinding Sparks of Steel,* Sept. 23 p 918
 Gröndal Plant at New Norwegian Iron Mines, Sept. 16 p 840
 "Growth" of Cast Iron After Repeated Heatings, Oct. 7 p 1086
 Guenther, J. Ed.:
 Interior Waterways Needed, Oct. 14 p 1168
 Guillet, Leon:
 Special Steels, Sept. 23 p 916
 Gun, Great Naval, Nov. 4 p 1405
 Gun, Shot, Repeating, Marlin New Model 26,* Nov. 11 p 1538
 Gun, Three-Barrel, Royal, July 22 p 308
 Guns and Ammunition, A Few Hints on the Care, Sept. 2 p 738
 Gutter Bearer, Adjustable,* Nov. 18 p 1614
 H.
 Haanel, Dr. Eugene:
 Pig Iron Production in an Electric Shaft Furnace,* Sept. 16 p 831
 Hack Saw Blades, All Hard, July 29 p 371
 Hack Saw Frames, Goodell-Pratt, New,* Sept. 16 p 895
 Hamilton Iron & Steel Company, Oct. 28 p 1327; Nov. 4 p 1417; Nov. 11 p 1496
 Hammer:
 Bliss Compound Pneumatic Forging,* July 1 p 24
 Foote Saw Set,* Sept. 16 p 893
 New Cleveland Chipping, Aug. 12 p 488
 New Peck Poppet Drop,* July 29 p 323
 Hampson-Fielding Engineering Company:
 Laramie-Poudre Reservoirs and Irrigation Project, Dec. 9 p 1780
 Hand Bellows, Nov. 4 p 1455
 Handles, Crooked, Straightening, for Axes, Sledges, Tools and Mauls, July 8 p 163
 Handles, Plain, Stained or Japanned, Nov. 18 p 1611
 Handling Small Rope,* Sept. 2 p 744

- Handy List, Mechanics, P. S. & W., Nov. 18 p 1611
- Hanger and Rail, Barn Door, Lane's Tubular,* Nov. 4 p 1458
- Hanger, Barn Door, Wagner Leader,* Sept. 9 p 821
- Hanger, Window Screen,* July 8 p 166
- Hangers, Moore Push-less,* Nov. 4 p 1455
- Harbison-Walker Refractories Company, Annual Statement, Nov. 25 p 1647
- Harbord, F. W. ;
Electric Refining of Steel, Aug. 19 p 542
- Hardware:
Accounting, July 8 p 162
And Ironmongery in Australasia, Nov. 4 p 1449
Good Versus Cheap, Nov. 4 p 1451
Manufacture in France, July 1 p 62
Manufacturers on Trade Conditions, Dec. 2 p 1732
Selling, to South America, Dec. 2 p 1724
Store with a History,* Aug. 26 p 666
Trade with the Philippine Islands, July 8 p 160
- Harlan & Hollingsworth New Under-frame Shop,* Dec. 9 p 1770
- Harriman Rail Specifications for 1909, Aug. 5 p 413
- Harrison Safety Boiler Works:
Water Heating and Softening,* Oct. 28 p 1320
- Harron, Rickard & McCone's New Building, Nov. 18 p 1548
- Hassel Motor Driven Emery Wheel Stand,* Dec. 9 p 1776
- Hawkeye Variable Speed Countershaft,* Sept. 9 p 776
- Hawkeye Wrench, July 15 p 237
- Hay-Budden New Process in Anvil Making, Sept. 30 p 1044
- Hay Press, Eli Self-Feed Three-Stroke No. 6,* Aug. 26 p 670
- Header, Powerful Waterbury Farrel Cold,* Dec. 16 p 1822
- Head, Micrometer, with Table of Decimal Equivalents,* Oct. 7 p 1131
- Head, Working, Myers Bulldozer Power,* Oct. 21 p 1294
- Heads, Drill, Imitation Osborne, Aug. 19 p 600
- Heat Transmission in Air Heaters, Improving,* Aug. 26 p 628
- Heat Treatment of Spring Steel,* Oct. 7 p 1070
- Heating Association, National District, July 22 p 262
- Heber Self-Tightening Rail Joint,* July 22 p 263
- Heine Safety Boiler Company:
Modern Boiler Shop,* Dec. 9 p 1759
- Helical Furnaces, Internally Fired, Oct. 14 p 1168
- Helices, Large Brass,* Sept. 23 p 907
- Henderson, C. T.:
Electric Control for Rolling Mill Motors,* Sept. 9 p 778
- Hendricks' Commercial Register, Nov. 11 p 1528
- Herman Pneumatic Machine Works Enlargement, Sept. 23 p 911
- Heroult Furnace in Mexico, Nov. 4 p 1391
- Hexagon Post Hole Digger,* July 22 p 308
- High Pressure:
Duplex Fire Protection System, Oct. 7 p 1075
New York Fire Service,* Oct. 21 p 1240
Philadelphia's Fire System Extended,* Oct. 28 p 1305
Venice, Cal., Salt Water System, Oct. 7 p 1063
- High Priced Sheffield Steel and the New Duty, Aug. 12 p 489
- High Prices and the Export Trade, Oct. 7 p 1082
- High Service, Treated Steel for,* Nov. 25 p 1632
- Hilgenstock, G.:
Direct Production of Ammonia from Coke Oven Gas,* Dec. 9 p 1764
- Hill Anthracite Gas Producer,* Dec. 2 p 1718
- Hill Bituminous Gas Producer,* Nov. 11 p 1480
- Hill-Hupfel Engineering Company:
Anthracite Gas Producer,* Dec. 2 p 1718
- Hill Milling Machine Dog, New,* July 1 p 17
- History, Leaf from, July 29 p 334
- History of Cincinnati Machine Tool Business, Dec. 2 p 1734
- Hob Grinding Attachment, Brown & Sharpe,* July 29 p 328
- Hob, Large, Brown & Sharpe,* July 1 p 20
- Hobber, Lees Gear,* July 29 p 330
- Hobbing Machine, Hoefler Tap,* Aug. 5 p 395
- Hoefler Tap Hobbing Machine,* Aug. 5 p 395
- Hoefler Vertical Two-Spindle Engine Boring Machine, Sept. 30 p 1000
- Hoist, Connellsville 500-Hp. Mine, Sept. 16 p 849
- Hoist, Connellsville Electric Mine,* Sept. 9 p 780
- Hoist Holder, Handy,* Sept. 23 p 969
- Hoist, Rasmus Electric,* Oct. 14 p 1164
- Holisting Plant at Ensley Blast Furnace No. 3,* Sept. 2 p 704
- Holder:
Bag, B. & L., Aug. 5 p 453
Bag and Truck, E-Z Combination,* Sept. 9 p 822
Candle, and Sticks, and Match Stands, Oct. 28 p 1368
Hoist, Handy,* Sept. 23 p 969
Match Box,* July 29 p 375
Robinson Boring Tool,* Sept. 2 p 699
- Holsters, Pistol, Gray Suede Leather,* July 15 p 238
- Home Town, Standing Up for the, Sept. 23 p 958
- Honer and Stropper, Razor, Fleming, Nov. 11 p 1535
- Hones, Razor, Ambicut,* July 8 p 165
- Horse Shoe, Cushion Interchangeable,* Nov. 18 p 1612
- Horse Shoe Trade, Mexican, Sept. 16 p 848
- Horton Machine Company, S. E., Sept. 30 p 999
- Horton, S. E., Lathe Chucks,* Dec. 2 p 1712
- Hose Reel, Detachable,* Aug. 12 p 525
- Hot Air, Polishing and Drying by,* Oct. 28 p 1322
- Hot Blast Stove, Nelson,* July 15 p 194
- Hot Blast Stove, New Foote-Lamond,* Oct. 14 p 1159
- Houston, Stanwood & Gamble Steel Boiler Settings,* Aug. 5 p 402
- Howard, James E.:
Notes on Tests of Ingots,* July 8 p 90
- Howe, Prof. Henry M.:
Segregation and the Size of Steel Ingots,* Nov. 4 p 1399
- Hubbard, Charles L.:
Shop Power Plant,* July 15 p 178
- Hubbard, Chas. S., Loving Cup to,* July 22 p 301
- Hudson-Fulton Historical Exhibit, Sept. 23 p 932
- Hudson Terminal Concourse Merchants, Inc., Sept. 16 p 889
- Humphries Mfg. Company:
Enameling of Cast Iron Articles, Dec. 23 p 1877
Trademark,* Aug. 26 p 668
- Hunt & Co., Robert W.:
Rail Sections Compared in Detail, July 15 p 198
- Hunter Saw Sharpening Machine,* Sept. 30 p 996
- Hussey, C. G., & Co.'s Expanding Trade, Dec. 9 p 1769
- Hydraulagraph, The,* Sept. 16 p 836
- Hydraulic Shears, Watson-Stillman,* Aug. 19 p 535
- I.
- Ice Scraper,* July 29 p 375
- Ice Tongs, Double Jointed, Ely's, Oct. 21 p 1294
- Icy-Hot Bottle,* Sept. 30 p 1045
- Illinois Farmers' Hall of Fame, Dec. 9 p 1789
- Illinois, Production of Coke in 1908, Aug. 12 p 506
- Illinois Steel Company:
Structural Plant Enlargement, Oct. 21 p 1265
- Imports and Exports of Iron and Steel, May, July 8 p 131; June and the Fiscal Year, Aug. 5 p 416; July, Sept. 23 p 915; August, Oct. 28 p 1323; September, Nov. 11 p 1491; October, Dec. 9 p 1786
- Implement and Vehicle Trade, Cost Accounting in the, Nov. 11 p 1534
- Implement and Vehicle Trade, Cost of Doing Business in the, Oct. 21 p 1279
- Impure Tin and Defective Solder, Dec. 2 p 1731
- Incorporation and Selling Stock to Farmers, Aug. 5 p 446
- Independent Steel Company of America:
Large Wire Project, July 29 p 354
- India Oilstone, Combination Circular,* Oct. 14 p 1216
- Indiana, Industrial Education in, Dec. 2 p 1728
- Indiana, Industry Bonus in, Oct. 14 p 1176
- Indiana Steel Company:
Billet Mill,* Oct. 21 p 1226
Burt Oil Filters,* Sept. 9 p 767
Fawcus Axle Lathes, Oct. 14 p 1154
Koppers By-Product Coke Ovens, July 1 p 29
New Construction, Aug. 12 p 488
- Indianapolis Drop Forging Company, July 22 p 307
- Indian Iron & Steel Plant, East,* Sept. 23 p 926
- Indicator, Speed, B. & S.,* Sept. 30 p 1046
- Industrial Education, Oct. 14 p 1169
- Industrial Education at Beverly, Mass., Dec. 2 p 1725
- Industrial Education in Indiana, Dec. 2 p 1728
- Industrial Instrument Company:
Standard Pressure Alarm Gauge,* Sept. 9 p 774
- Industry, Alluring Field of, Aug. 12 p 487
- Ingots, Notes on Tests of,* July 8 p 90
- Ingots, Segregation and the Size of Steel,* Nov. 4 p 1399
- Inland Steel Company:
Rail Carbon Steel Bars,* Dec. 16 p 1823
Will Enlarge Sheet Capacity, July 15 p 216
- Insect Screen, Frameless,* Sept. 2 p 751
- Insurance, Bay State's Low Cost Life, Dec. 30 p 1924
- Internal Commerce During July, Sept. 9 p 802
- Internal Grinding Machine, Bath Duplex,* Sept. 30 p 979
- International Acheson Graphite Company:
Expedition in Filling Order, July 15 p 217
- International Congress of Mining and Metallurgy, Nov. 4 p 1409
- International Harvester Company, Nov. 18 p 1590
- Profit Sharing, July 22 p 265
- Profit Sharing, Benefits, Pensions, Dec. 2 p 1704
- International Iron Molders' Union of North America:
Semi-Centennial of a Militant Union, Aug. 12 p 487
- International Machine & Screw Company, Dec. 2 p 1731
- International Rail Pool Incident, Dec. 23 p 1890
- International Rail Syndicate, Nov. 25 p 1652
- International Society for Testing Materials:
Copenhagen Meeting, Sept. 23 p 922
Meeting in New York in 1912, Sept. 16 p 872
- International Steam Pump Company, Annual Report, July 29 p 338
- International Steel Tie Company, Nov. 4 p 1408

Introducing New Goods, Aug. 12 p 523
 Inventors to Be Assisted, Oct. 28 p 1311
 Invoicing Stock, New Method of,* July 8 p 155
 Iron and Steel Board of Trade:
 Looking After Credits, Oct. 21 p 1231
 Iron and Steel Making Capacity, New, Aug. 19 p 556
 Iron-Copper Alloys, Physical Properties of,* Nov. 11 p 1476
 Iron Ore:
 (See Lake Superior Ore.)
 Advocating Export Duty on Newfoundland, Aug. 19 p 561
 Deposits of Nova Scotia, July 22 p 255
 Deposits of Swedish Lapland, Oct. 7 p 1074
 Great Adirondack Deposit,* Oct. 14 p 1143
 Heavy Imports to United States in 1910, Sept. 9 p 785
 Imports of Swedish, Sept. 16 p 871
 Lake Shipments by Ports, Oct. 14 p 1155
 New Tariff and Ore Imports, Sept. 30 p 1004
 Record Output at Port Henry, Oct. 7 p 1085
 Remarkable Paper Finds of, Sept. 2 p 711
 Residual Brown of Cuba,* Aug. 26 p 614
 Texas Developments, Oct. 7 p 1106
 Iron, Wrought, Distinguishing from Steel,* Dec. 23 p 1894
 Ironmaster Has Promoted Peace, How the, July 8 p 124
 Ironmonger Fifty Years Old, London, Sept. 30 p 1004
 Irons, Sad, Gasoline and Alcohol,* Aug. 12 p 526
 Irrigation Project in Wyoming, Great, Nov. 4 p 1399
 Italy, Pittsburgh Coal Contract for, July 22 p 272

J.

Japanese Commercial Commissioners at Pittsburgh, Nov. 11 p 1472
 Jarvis Drawing-In Chuck,* Sept. 30 p 999
 Jeffrey Storage Battery Car,* Aug. 19 p 541
 Jenckes Mfg. Company, E., Dec. 16 p 1821
 Jennings, Russell, Mfg. Co., July 22 p 304
 Jobbers, Small, and Large Retailers, Sept. 16 p 887
 Johnson, Isaac G., & Co.:
 Danger of Malleable Iron for Automobile Parts, Dec. 9 p 1783
 Joint, Heber Self-Tightening Rail,* July 22 p 263
 Joint, Improved Ball-Bearing Universal,* Aug. 19 p 554
 Joliet Steel Car Mfg. Company, July 15 p 202
 Jolt Ramming Molding Machines, July 8 p 126
 Jones & Laughlin Steel Company:
 Contracts Placed for Tin Plate Plant, July 8 p 88
 To Make Wire, July 29 p 354
 Jones, William J.:
 Unique Metal Rolling Machine,* Oct. 21 p 1232
 Judicial Decisions, July 15 p 201; July 22 p 306; Aug. 5 p 398; Aug. 12 p 507; Aug. 19 p 555; Aug. 26 p 651; Sept. 2 p 714; Sept. 30 p 1001; Oct. 21 p 1239; Nov. 4 p 1404; Dec. 2 p 1751; Dec. 30 p 1956

K.

Kansas City Rate Case, Sept. 2 p 706
 Kapp, Dr. Gisbert:
 Electrical Progress in the British Iron Industry, Dec. 2 p 1722
 Kearney & Trecker Company:
 New Milwaukee Universal Milling Attachment,* Oct. 28 p 1316
 Keeler, Warren L.:
 Determining Carbon in Steel,* July 22 p 260

Kennedy, Dahlin & Co., Ltd.:
 East Indian Iron and Steel Plant,* Sept. 23 p 926
 Kern Drilling and Tapping Machine,* Sept. 23 p 909
 Kettle and Plate Scraper, Klean-em,* Nov. 25 p 1690
 Kettle, Tea, Peerless Enameled,* Aug. 19 p 601
 Key Hole Saw, Simonds Adjustable,* Aug. 5 p 456
 Keys and Keyways, Standards for, Nov. 11 p 1515
 Keyseating Machine, Lapointe Vertical,* Aug. 5 p 393
 Keystone Coal & Coke Company:
 Coal Contract for Italy, July 22 p 272
 Keystone Driller Company:
 Electrically Driven Well Driller,* July 22 p 250
 Keystone Tube Company:
 New Structural Tube Plant, Aug. 19 p 565
 Kiewert Company, Charles L.:
 Auroa Flaming Arc Lamp,* July 22 p 250
 King of All Stroppler, Improved,* Sept. 2 p 748
 Kinney Company, Abbot:
 Venice, Cal., High Pressure Salt Water System, Oct. 7 p 1063
 Kirchhoff, Charles, Retirement of, Dec. 2 p 1726
 Kitchen, Automatic, A. A.,* July 8 p 164
 Kitchen Cabinet with Fireless Cooker, I-X-L Electric,* July 22 p 310
 Kitchen Utensil and Automobile Steel Mats,* Sept. 2 p 751
 Kits, Automobile, Reamer Set No. 30,* Nov. 18 p 1614
 Knife, Corn, Safety,* Oct. 28 p 1370
 Knife, Draw, Adjustable Auto Body,* Sept. 30 p 1045
 Knight Drilling and Milling Machine, No. 2,* Aug. 5 p 391
 Knives, Butcher, John Wilson's, July 8 p 164
 Knob Latch, Reading Cylinder Protected Front Mortise,* Oct. 14 p 1214
 Koppers By-Product Coke Ovens:
 For Gary, July 1 p 29
 For Lake Superior Corporation, Dec. 9 p 1781

L.

L. & D. Company:
 Pullet Belt Snifter,* Aug. 5 p 401
 La Belle Iron Works, Annual Report, Sept. 16 p 859
 Labor:
 Conditions in Country Towns, Oct. 21 p 1247
 Legislative Programme, Dec. 30 p 1940
 Notes, July 8 p 145; July 15 p 216; Sept. 2 p 712; Sept. 16 p 872; Nov. 4 p 1417; Nov. 18 p 1574; Nov. 25 p 1668; Dec. 2 p 1728; Dec. 9 p 1788; Dec. 23 p 1910; Dec. 30 p 1955
 Stove Manufacturers Discuss Molders' Wages, Dec. 2 p 1731
 Troubles in the Iron Trade, July 22 p 275
 Ladders, Clear White Spruce, July 29 p 371
 Lake Superior Corporation:
 Electric Furnaces at the Sault, Oct. 14 p 1190
 Koppers Coke Ovens, Dec. 9 p 1781
 Lake Superior Mining Institute, Aug. 5 p 389; Aug. 26 p 639; Sept. 2 p 709
 Lake Superior Ore:
 Early Handling on the Lakes, Dec. 16 p 1860
 Heavy Shipments from Minnesota, Aug. 26 p 652
 Large Increase in Shipments, July 15 p 203
 Mesaba Range the Key to the Lake Ore Situation, Dec. 23 p 1891
 Movement in July, Aug. 12 p 489
 Movement in 1909, Aug. 26 p 634
 Percentage of Bessemer Ores, Dec. 16 p 1841
 Record in Shipments, Dec. 9 p 1806

Lake Superior Ore:

Shipments by Ports, Oct. 14 p 1155
 Shipments in August, Sept. 16 p 854
 Shipments to November 1, Nov. 11 p 1482

Lamps:

Adams-Bagnall Arc,* Oct. 7 p 1077
 Aurora Flaming Arc,* July 22 p 250
 Baldwin Acetylene Mine,* Nov. 26 p 1690
 Electro Portable,* Oct. 7 p 1132
 Polar Flaming Arc,* Dec. 9 p 1782
 Syracuse Hammered Copper,* Nov. 11 p 1538; Nov. 18 p 1612
 Tungsten, New 200-250-Volt,* Aug. 5 p 455

Lane, H. M.:

Manufacture of Tin Cans,* Sept. 2 p 681

Langdon, N. M.:

Fuel Economy in the Blast Furnace, Nov. 4 p 1398

Langelier Swaging Machine, Heavy,* Sept. 16 p 843

Lapland, Iron Ore Deposits of Swedish, Oct. 7 p 1074

Lapointe Vertical Keyseating Machine,* Aug. 5 p 393

Laramie-Poudre Reservoirs and Irrigation Project, Dec. 9 p 1780

Largest Individual Steel Plant in Europe, Dec. 16 p 1843

Largest Pig Iron Output for a Day, Oct. 7 p 1084

Lash Direct Process, Cost of Steel by, Sept. 2 p 699

Latch, Knob, Reading Cylinder Protected Front Mortise,* Oct. 14 p 1214

Latent Demand for Machinery, Sept. 2 p 706

Lathe:

Champion Heavy 18-in.,* Sept. 30 p 987

Davis Drive and Feed Improvements,* July 29 p 331

Dreses Improved Universal Monitor,* Oct. 14 p 1154

Dreses New Universal Monitor,* Nov. 25 p 1639

Fawcus, for Gary Works, Oct. 14 p 1154

Le Blond Heavy Duty,* Sept. 2 p 686

Le Blond Heavy Duty Automobile,* Oct. 7 p 1060

Lodge & Shipley Marvel,* July 29 p 319

Lodge & Shipley 16-in.,* Nov. 18 p 1552

Milwaukee Improved 16-in.,* Oct. 7 p 1078

Nutting Buffing and Polishing,* July 29 p 328

Osborn Double Spindle Polishing and Buffing,* Oct. 28 p 1307

Standardized, Engine, Dec. 16 p 1842

Star Motor-Driven,* Nov. 25 p 1629

Star New Model,* Aug. 26 p 632

Wells New Polishing and Finishing,* Dec. 2 p 1705

Latin-American Machinery Trade, Sept. 2 p 717

Lawn and Tennis Court Roller,* July 1 p 77

Lawn Mower Grinder, Unique,* Aug. 26 p 670

Lawn Mowers, Reading Hardware Company's, Nov. 4 p 1455

Lawn Trimmer, Coldwell,* Oct. 21 p 1295

Lawn Trimmer, Utica Improved, Oct. 21 p 1294

Lawrence Portland Cement Company:
 Dragon Portland Cement, Sept. 23 p 929

Prevention of Rust in Reinforcement for Concrete, Oct. 21 p 1251

Leather Shears,* Aug. 12 p 525

Le Blond Heavy Duty Automobile Lathe,* Oct. 7 p 1060

Le Blond Heavy Duty Lathes,* Sept. 2 p 686

Lead Pipe Plant at Pittsburgh, New, Aug. 26 p 627

Leaf from History, July 29 p 334

Leather Belting Manufacturers' Association, Nov. 25 p 1646

- Lee's Gear Hobber,* July 29 p 330
 Leffler Double Seamer, New,* July 22 p 259
 Legislative Programme, Labor's, Dec. 30 p 1940
 Leland High Speed Sensitive Drill,* Dec. 2 p 1699
 Letterheads, Hardware Merchants,* Nov. 11 p 1531; Nov. 18 p 1610; Nov. 25 p 1685
 Letters and Figures, Steel, "Very Best," Oct. 7 p 1131
 Letters, Circular, in Invisible Ink, Oct. 7 p 1126
 Level Sight Attachments,* July 29 p 374
 Level, Straight Edge, Leonhart's Improved,* Sept. 2 p 749
 Lewis Foundry & Machine Company, Oct. 28 p 1328
 Library Given to the Electrical Engineers, Patent Specification, Sept. 9 p 784
 Lidgerwood Mfg. Company:
 Panama Canal Cableways,* Nov. 11 p 1472
 Lid, Pot, Rack,* Nov. 25 p 1682
 Life of Electric Railroad Rails, Aug. 5 p 391
 Lifter, Bottle Cap, and Can Opener, Sure Cut,* Nov. 25 p 1690
 Lifters, Cover, Parkinson's Evercool,* Nov. 4 p 1457
 Lifter, Transom, Payson Simplex,* Oct. 14 p 1215
 Liggett Spring & Axle Company, Aug. 26 p 611
 List Prices on Window Glass, July 8 p 158
 Living, Increased Cost of, Dec. 30 p 1936
 Lock:
 Clark's Emergency Exit Door,* Nov. 4 p 1457
 Crofton & Fleuroy Designs,* Oct. 7 p 1134
 J. B. Automatic Sash,* Sept. 16 p 893
 Lip Strainer,* Oct. 7 p 1133
 New Ideal Mortise,* Oct. 14 p 1215
 Pittsburgh Ventilating Sash,* Aug. 19 p 598
 Richards' No-Break Sliding Door, No. 500,* Sept. 2 p 749
 Lockwood-Leutkemeyer-Henry Company Absorbs McIntosh Hardware Corporation, Nov. 25 p 1688
 Locomotive:
 Bucyrus Pile Driver,* Dec. 23 p 1872
 Huge, July 22 p 262
 Huge Atchison, Nov. 4 p 1430
 N. Y., N. H. & H. Electric Freight,* Sept. 30 p 988
 Pennsylvania Railroad Company's Electric, Nov. 4 p 1412
 Side Rod Electric, July 15 p 205
 Steam Turbine Electric, Dec. 30 p 1933
 Youngstown Electric Industrial,* Oct. 28 p 1319
 Lodge & Shipley Lathe with Multiple Stops,* Nov. 18 p 1552
 Lodge & Shipley Marvel Lathe,* July 29 p 319
 Lodge, William:
 History of Cincinnati Machine Tool Business, Dec. 2 p 1734
 Lorain Works, Improvements at, Aug. 12 p 477
 Loving Cup to Charles S. Hubbard,* July 22 p 301
 Low Prices, Should Retail Merchants Demand, July 1 p 64
 Lubricator, Van Doren,* Aug. 26 p 617
 Lukens Iron & Steel Company Improvements, Dec. 16 p 1845
 Lunch and Beverage Case, Combination,* Aug. 12 p 524
 Lunkenheimer Oil-Air Cock,* July 8, p 89
 M.
 McClintic-Marshall Construction Company, New Works of the, Nov. 11 p 1503
 McClure Stove Contracts, Dec. 23 p 1898
 McGraw-Hill Book Department, July 1 p 11
 McIntosh Hardware Corporation Absorbed by Lockwood-Leutkemeyer-Henry Company, Nov. 25 p 1688
 McKee, Willis:
 Special Sections of Iron and Steel,* Sept. 23 p 912
 McKinnon Chain Company, July 22 p 272
 McKinnon Dash Company, Oct. 28 p 1368
 McMaster-Carr Supply Company:
 Maymont Self-Oiling Loose Pulley,* Aug. 26 p 630
 McMillan Pump, Power & Mfg. Company:
 Inventors to Be Assisted, Oct. 28 p 1311
 Mackintosh, Hemphill & Co. Volume, Oct. 21 p 1251
 MacIntyre Iron Company:
 Great Adirondack Iron Ore Deposit,* Oct. 14 p 1143
 Machinery:
 Attempts to Buy Directly, Dec. 16 p 1841
 Buyers Should Accept Agreed Deliveries, Dec. 30 p 1927
 Chicago's Exhibition Warehouse, Oct. 21 p 1224
 Conferences of Dealers' and Manufacturers' Associations, Oct. 14 p 1190
 Developing New Demand for, Nov. 4 p 1407
 Latent Demand for, Sept. 2 p 706
 Latin-American Trade, Sept. 2 p 717
 New Demand for Special, Dec. 2 p 1727
 Resale Prices, Dec. 16 p 1845
 Machine Shop, Portable Railroad, Dec. 9 p 1783
 Machine Shop, Piecework in, Oct. 28 p 1326
 Machine Tool Costs and Efficiency, Nov. 4 p 1406
 Machine Tool Prices Advancing, Nov. 25 p 1646
 Machine Tools, Foreign, Will They Invade America? Sept. 16 p 853
 Magnesite Works, Austria-American, Oct. 21 p 1249
 Magnet, New Cutler-Hammer Lifting,* Sept. 30 p 996
 Magnets, E. C. & M. Rail Handling,* Aug. 5 p 409
 Magnifier for Slide Rules,* Aug. 12 p 527
 Mail Box, Twentieth Century,* July 8 p 165
 Mail, Getting Business Through the,* Sept. 2 p 739
 Mail Order and Parcel Post, Nov. 18 p 1602
 Maine Mfg. Company's 1910 Refrigerators, Oct. 14 p 1213
 Makers, Bread and Cake, Central Seamless,* Sept. 16 p 892
 Malleable Castings for Automobile Parts, Dec. 9 p 1783
 Manganese and Manganiferous Ores in 1908, Production of, Aug. 19 p 561
 Manganese Steel Products,* Sept. 30 p 984
 Manning, Bowman & Co.'s Catalogue, Oct. 28 p 1367
 Manufacturers, Hardware, on Trade Conditions, Dec. 2 p 1732
 Manufacturers' Prices to Small Jobbers, Oct. 7 p 1125
 Manufacturing by a Municipality,* Aug. 26 p 611
 Marine Steam Turbine Reducing Gear, Sept. 16 p 854
 Marine Turbine, Triumph for the, Nov. 18 p 1559
 Marketing Methods, Changes in, Sept. 30 p 1036
 Marking of Imported Cutlery and Other Articles, Sept. 9 p 787; Oct. 21 p 1249
 Markt & Co.'s Larger Field, Aug. 26 p 670
 Martin Forging Company, Henry J., Sept. 9 p 808
 Martin, Henry G.:
 Barium and Sulphur in Fluorspar,* Aug. 5 p 392
 Marvel Lathe, Lodge & Shipley,* July 29 p 319
 Maryland Rail Company Succeeded by United States Rail Company, Oct. 21 p 1267
 Maryland Steel Company, Nov. 11 p 1511
 Mask, Baseball, Mascot Electric Welded,* Aug. 26 p 672
 Massachusetts Gas and Electric Light Commission:
 Public Power Service Precedent, July 22 p 271
 Massachusetts' Low Cost Life Insurance, Dec. 30 p 1924
 Mat, Folding Steel Wire, Standard, Sept. 9 p 820
 Match Box Holder,* July 29 p 375
 Match Stands, Candle Holders and Sticks and, Oct. 28 p 1305
 Mats, Steel, Kitchen Utensil and Automobile,* Sept. 2 p 751
 Maximum Tariff Clause, Aug. 26 p 635
 Maxwell-Briscoe Motor Company:
 Automobile Prices May Be Higher, Nov. 11 p 1499
 Maymont Self-Oiling Loose Pulley,* Aug. 26 p 630
 Mechanical Engineers:
 Oct. 7 p 1061; Nov. 18 p 1570; Dec. 9 p 1788; Dec. 16 p 1824
 Mechanics' Handy List, P. S. & W., Nov. 18 p 1611
 Melville-Macalpine Steam Turbine Reducing Gear,* Dec. 9 p 1766
 Menagh's, John S., New Store,* Aug. 26 p 661
 Merchant Mill, Electrically Driven,* July 1 p 12
 Merchants' and Manufacturers' Exchange of New York, Nov. 25 p 1687
 Mesaba Range the Key to the Lake Ore Situation, Dec. 23 p 1891
 Mesta Machine Company:
 Air Compressors,* July 15 p 175
 Electrical Equipment in Pattern Shop,* July 1 p 14
 Important Machinery Shipments, Nov. 25 p 1651
 Large Steel Lever Shear,* Sept. 16 p 846
 Plant Description,* Aug. 12 p 465
 Receives Large Orders, July 29 p 340
 Some Orders, Oct. 7 p 1081
 Metal, Art Crafting in,* Aug. 5 p 448
 Metal Bed and Bed Spring Manufacturers' Association, Dec. 16 p 1846
 Metal Dross Economy Company:
 Method of Saving Brass Skimmings, Oct. 28 p 1330
 Metal Exchange Adopts New Rules, New York, July 29 p 339
 Metal Exchange Copper Transaction, July 15 p 203
 Metal Rolling Machine, Unique,* Oct. 21 p 1232
 Metal Schedule, Full Text, as Revised by the Senate, July 8 p 106
 Metal Schedule in Its Final Shape, Aug. 5 p 404
 Metal Working Schedules, Census, Dec. 2 p 1720
 Metallurgy of the Electric Steel Furnace, Aug. 5 p 388
 Metcalf & Eddy:
 Notable Municipal Report, July 1 p 15
 Metric System in Denmark, Dec. 30 p 1938
 Metropolitan Hardware Company's Establishment,* Oct. 14 p 1909; Oct. 21 p 1280; Oct. 28 p 1363
 Meurer Brothers Company Making Tin Plates at Washington, Pa., Aug. 12 p 490
 Mexico:
 Horse Shoe Trade, Sept. 16 p 848
 Iron and Coal Development, Nov. 18 p 1549
 Mexican Iron & Steel Company, Aug. 26 p 652
 Mexican Steel & Chemical Company, Heroult Furnace, Nov. 4 p 1391
 Prevention of Accidents in a New Colliery, July 15 p 199
 Mica Market and Canada, American, July 22 p 258

- Mica Sampled,* Oct. 7 p 1125
Michigan Central Railroad:
Laying Concrete Under Water, July 22 p 251
Michigan Copper & Brass Company's Growth, Sept. 2 p 689
Micrometer Head with Table of Decimal Equivalents, Slocumb,* Oct. 7 p 1131
Middletown Car Plant, Standard Steel Car Company Buys, Sept. 9 p 801
Midvale Steel Company:
Great Naval Gun, Nov. 4 p 1405
Mill, Electrically Driven Merchant,* July 1 p 12
Mill Motors, General Electric,* Oct. 7 p 1062
Miller:
Beaman & Smith Standard Milling and Boring,* Dec. 20 p 1932
Bickford & Washburn Pipe Tap Thread,* Oct. 7 p 1076
Brown & Sharpe Tests, July 15 p 176
Chicago Duplex Feather Keyseating,* Nov. 4 p 1387
Chicago Improved No. 3 Hand,* July 29 p 332
Cincinnati Combined Milling and Boring,* Nov. 25 p 1642
Fosdick New Horizontal Milling, Drilling and Boring,* Nov. 11 p 1475
Interesting Fox Job,* July 8 p 104
Hill, New, Machine Dog,* July 1 p 17
Knight No. 2 Milling and Drilling,* Aug. 5 p 391
Milwaukee New Universal Attachment,* Oct. 28 p 1316
Milliken Brothers, Inc., Reorganization of, July 8 p 127; Nov. 4 p 1417; Nov. 18 p 1573; Nov. 25 p 1656
Mills, C. Gordon:
Determining Sulphur in Steel,* Oct. 28 p 1318
Milwaukee Improved 16-in. Lathe,* Oct. 7 p 1078
Milwaukee Universal Milling Attachment, New,* Oct. 28 p 1316
Mine Investors, Protection of, Sept. 23 p 934
Mine Lamp, Acetylene, Baldwin,* Nov. 25 p 1690
Miner & Peck Mfg. Company:
Two New Peck Poppet Drop Hammers,* July 29 p 323
Mineral Production of United States in 1908, Dec. 2 p 1719
Mines, Concrete Shafts at Lake,* Aug. 26 p 622
Mines, Gröndal Plant at New Norwegian Iron, Sept. 16 p 840
Mining, Welfare Work in Iron, Oct. 14 p 1160
Miter Box, Paper Hangers,* Nov. 18 p 1614
Miter Box Set,* Nov. 18 p 1614
Mixer, Mayonnaise, Egg Beater and Cream Whip, Holt's Improved Dover,* Nov. 11 p 1537
Model Hardware Store, and Industrial Parade Float,* Nov. 11 p 1533
Modern Methods and the Business Specialist, July 15 p 184
Moeller Air Filters for Machinery,* Nov. 4 p 1402
Molders' Wages, Stove Manufacturers Discuss, Dec. 2 p 1731
Molding Machine, Jolt Ramming,* July 8 p 126
Molding Machine, Osborn Jolt,* Nov. 18 p 1560
Molds, Machine Molded Ingot, Sept. 23 p 915
Monday Claims, No, Nov. 4 p 1453
Moore Push-less Hangers,* Nov. 4 p 1455
Mop Wringer, White Family Size, July 15 p 237
Mortise Lock, New Ideal,* Oct. 14 p 1215
Motor:
Electric Control for Rolling Mill,* Sept. 9 p 778
Excess Speed Alarm for Vehicles, July 15 p 177
General Electric Mill,* Oct. 7 p 1062
Motor:
Rolling Mill, July 8 p 111
Valley City Water,* July 29 p 373
Westinghouse Type D A Alternating Current,* July 1 p 77
Motor Car Paying Its Debt to Machine Tools, Dec. 9 p 1786
Motors and Controlling Devices, Revised Navy Specifications for Electric, Dec. 2 p 1701
Moulton, W. H.:
Welfare Work in Iron Mining, Oct. 14 p 1160
Mount Union Silica Brick Company, Dec. 23 p 1879
Moving Exhibits of Chisels and Auger Bits,* Nov. 18 p 1608
Multiple Tool Holder Company:
Brewer Multiple Tool Holder,* Sept. 9 p 777
Mumford Company, E. H.:
Jolt Ramming Molding Machines,* July 8 p 126
Mumford, E. H.:
Machine Molded Ingot Molds, Sept. 23 p 915
Municipal Equipment Orders and Canadian Manufacturers, Nov. 4 p 1408
Municipal Report, Notable, July 1 p 15
Municipality, Manufacturing by a,* Aug. 26 p 611
Murray Laboratory Engine,* Dec. 23 p 1869
Mutual Insurance, Hardware, July 29 p 369
N.
Nagle, A. F.:
Report on Cast Iron Test Bars, Dec. 30 p 1934
Nailless Box Strap and Seal, Brooks,* Aug. 19 p 599
Nails, Clinching, Holdfast, Oct. 21 p 1294
Napier Automobile Company:
Airship Factory, Aug. 12 p 508
National Daylight Association, July 15 p 199
National District Heating Association, July 22 p 262
National Enameling & Stamping Company, Aug. 19 p 565
National Founders' Association, Oct. 21 p 1233; Nov. 11 p 1486; Nov. 18 p 1566
National Machine Tool Builders' Association, Oct. 14 p 1171; Oct. 21 p 1231
National Metal Trades Association, Nov. 4 p 1411
National Multiple Spindle Drill,* July 8 p 93
National Roll & Foundry Company, Aug. 5 p 409; Aug. 26, p 650
National Tube Company:
Improvements at Lorain Works, Aug. 12 p 477
Kewanee Products, Nov. 11 p 1503
Nau, J. B.:
Titaniferous Ore in Puddling and Blast Furnaces, Oct. 15 p 1223
Naval Architects and Marine Engineers, Society of, Nov. 11 p 1500
Navy:
As an Industrial School, July 29 p 336
Cost Systems in, Nov. 4 p 1407
Department Favors the Delaware, Dec. 23 p 1879
Gas Producers and Fuel Oil in, Dec. 23 p 1875
Repair Ship's Publicity Usefulness, Nov. 25 p 1645
Specifications for Electric Motors and Controlling Devices, Dec. 2 p 1701
Tool Steel Specifications for, Aug. 12 p 480
Nelson Hot Blast Stove,* July 15 p 194
Net Weights in Paints, Oct. 28 p 1368
New England Butt Company:
English Type Wire Stranding Machine, New,* Sept. 9 p 762
New England Foundrymen's Association, Outing, July 22 p 259
New Goods, Introducing, Aug. 12 p 523
New York Central's Improved Freight Carrying Facilities, Aug. 5 p 416
New York Electrical Show, Oct. 21 p 1244
New York Gas Producer and Gas Engine,* Nov. 4 p 1384
New York High Pressure Fire Service,* Oct. 21 p 1240
N. Y., N. H. & H. Electric Freight Locomotive,* Sept. 30 p 988
New York State Steel Company's Plant,* Nov. 25 p 1623
Newark Foundrymen's Association, Oct. 14 p 1155; Dec. 9 p 1786
Newark Municipal Employment Bureau, Dec. 16 p 1848
Newfoundland Iron Ore, Advocating an Export Duty on, Aug. 19 p 561
Newton Cylinder Boring Machine,* Dec. 2 p 1710
Newton 15-in. Stroke Slotting Machine,* Nov. 25 p 1637
Newton Special Crank Shaft Sawing Machine,* Sept. 23 p 908
Niagara Power, Industrial Attraction of, Aug. 26 p 652
Nicol & Co., B.:
New Agency for Foreign Ores, Sept. 23 p 947
Nicou, P.:
Iron Ore Deposits of Swedish Lapland, Oct. 7 p 1074
Nine Months' Test of Titanium Steel Rails,* Aug. 5 p 394
Noiseless Machine Shop, Nov. 18 p 1570
North & Judd Mfg. Company's New Catalogue, Sept. 2 p 747
Norton Camshaft Grinder,* Dec. 23 p 1878
Norton Running Balance Machine,* Dec. 16 p 1836
Norwalk Lock Company's New Catalogue, Oct. 7 p 1126
Norwegian and Swedish Electric Smelting, Dec. 2 p 1703
Norwegian Iron Mines, Gröndal Plant at New, Sept. 16 p 840
Nut Crack, Spring,* Sept. 30 p 1046
Nutting Buffing and Polishing Lathe,* July 29 p 328
O.
Oak Park Power Company:
Interesting Central Supply System, Sept. 16 p 849
Obermayer Company, S.:
Bull Dog Core Wash, Oct. 14 p 1168
Obituary:
Anderson, Harvey L., Nov. 11 p 1525
Ayrault, Miles, Sr., July 1 p 38
Bachman, Morris,* Dec. 16 p 1846
Bancroft, Joseph B., Oct. 28 p 1330
Barnsley, George T., Oct. 28 p 1330
Barstow, Frank Q., Aug. 26 p 637
Beardsley, Samuel R., Dec. 9 p 1788
Berkele, Henry, Sept. 9 p 820
Bissell, Eugene,* Sept. 2 p 741
Blackburn, James H., July 1 p 38
Booth, Henry J., Dec. 2 p 1729
Bourne, Sylvanus, Oct. 7 p 1085
Brayton, Albert P., July 1 p 38
Brock, Arthur, Dec. 30 p 1942
Brown, James W.,* Nov. 4 p 1409
Buck, Leffert L., July 22 p 291
Bush, Thomas G.,* Nov. 25 p 1651
Byers, Dallas C., Sept. 2 p 713
Caldwell, John, Nov. 25 p 1651
Campbell, Joseph, Dec. 23 p 1896
Catley, Ben, Oct. 7 p 1085
Clark, Robert, July 22 p 291
Coburn, Lemuel, Oct. 28 p 1330
Coe, Edward T., Oct. 7 p 1085
Coe, Lord M., Aug. 12 p 492
Cordier, Charles X.,* Sept. 9 p 813
Cordo, Frank L., Dec. 23 p 1896
Cotton, J. Whitcomb, Sept. 9 p 803
Crandall, L. A., Nov. 4 p 1409
Cunningham, G. C., Dec. 16 p 1846
Curtis, Roderick P., Aug. 19 p 562
Dennis, William B., July 22 p 291
Du Bois, Joseph D., Aug. 19 p 562
Dudley, Dr. Charles B.,* Dec. 30 p 1941
Duduit, Francis E., July 29 p 342
Eshleman, B. F.,* July 15 p 228
Evans, Robert D., July 15 p 204
Ewald, Louis P., Aug. 12 p 492
Fenner, N. Paul, Jr., July 22 p 291
Fischer, George L., Sept. 9 p 803

Obituary:

Friend, James W., Dec. 30 p 1941
 Fuller, George, Nov. 11 p 1525
 Gilbert, Riley M., Aug. 26 p 637
 Gildersleeve, David H., Aug. 5 p 418
 Green, James D., Nov. 11 p 1525
 Grout, Fred E., July 22 p 291
 Grover, Lewis C., Oct. 7 p 1085
 Gruendler, William, Aug. 26 p 637
 Hagerman, J. J., Sept. 23 p 929
 Hartupee, William D., Sept. 30 p 1007
 Harvey, T. W., Sept. 30 p 1007
 Hayward, Thomas J., Nov. 4 p 1400
 Hendrick, E. E., Nov. 18 p 1573
 Hendricks, Edmund,* Nov. 11 p 1498
 Hoe, Robert, Sept. 30 p 1007
 Holmes, A. Bradshaw, July 8 p 146
 Hulme, Isaac, Sept. 16 p 857
 Jacques, George W., July 15 p 204
 Johnson, William T., Aug. 26 p 637
 Keeley, Jerome, July 8 p 146
 Kellogg, Milo G., Sept. 30 p 1007
 Knight, Joseph S., Nov. 11 p 1498
 Lamoreux, S. W., Aug. 12 p 492
 La Tourette, Philip, Dec. 2 p 1729
 Leary, Thomas J., Aug. 26 p 670
 Lee, James W., July 1 p 38
 Lewis, Nathan B., Nov. 18 p 1573
 Lutton, William H., Sr., Oct. 28 p 1330
 Luty, Samuel F., July 8 p 146
 McCutcheon, Thomas G., Dec. 30 p 1942
 McGugin, William N., Dec. 16 p 1846
 McVittie, Alexander, Sept. 23 p 929
 Mack, Thomas A., Oct. 28 p 1330
 Magee, William C., Dec. 30 p 1942
 Magovern, Edward E., Oct. 14 p 1209
 Malone, Oliver P., Sept. 30 p 1044
 Matthews, Wm. H., Oct. 28 p 1330
 Menshausen, Carl, Sept. 16 p 857
 Metcalf, Orlando, Sept. 30 p 1007
 Metcalf, William,* Dec. 9 p 1788
 Mizner, Thomas, July 8 p 146
 Moren, William, Sept. 23 p 929
 Morrell, Thomas T., Dec. 30 p 1942
 Morris, Israel W., Dec. 30 p 1942
 Noelke, Frederick, July 22 p 291
 Norton, Charles W., Dec. 23 p 1896
 O'Hanlon, Thomas, Dec. 30 p 1942
 Perks, Albert J.,* Oct. 14 p 1174
 Peters, Charles, Dec. 16 p 1846
 Peterson, Frank, July 1 p 38
 Pope, Albert A., Aug. 12 p 492
 Pratt, Dexter, July 15 p 204
 Pyott, David, Sept. 9 p 803
 Quackenbush, Abraham, Sept. 2 p 741
 Randle, John E., Nov. 18 p 1573
 Rankin, Charles S., Dec. 16 p 1846
 Roach, Patrick E., July 29 p 342
 Robertson, Kenneth, Oct. 7 p 1085
 Robie, Geo. T., July 29 p 370
 Rollins, George A., Oct. 7 p 1085
 Sack, Hugo, Aug. 5 p 418
 Sampson 2d, Alden, Dec. 9 p 1788
 Sanford, Walter L., Dec. 23 p 1896
 Savage, William M., Dec. 23 p 1896
 Schrieber, Charles C., Aug. 12 p 492
 Schuyler, Herman P., Aug. 19 p 562
 Sears, Thomas H., Aug. 5 p 418
 Shuler, William S., Dec. 30 p 1942
 Singer, William H., Sept. 23 p 929
 Somers, Guy A., Sept. 30 p 1007
 Souther, Albert G., July 8 p 146
 Spaeter, Carl, Aug. 12 p 492
 Stucki, Daniel K.,* July 15 p 229
 Surpluss, James,* July 15 p 229
 Swineford, A. P., Nov. 18 p 1573
 Taggart, Alfred C., Nov. 11 p 1498
 Thompson, George W., Nov. 25 p 1651
 Thompson, Joseph W., July 29 p 342
 Thornburg, Robert, Sept. 30 p 1007
 Timby, Dr. Theodore R., Nov. 18 p 1573
 Turner, John D., Oct. 14 p 1174
 Van Arsdale, Robert M., Nov. 25 p 1651
 Van Deventer, Silas C., Dec. 2 p 1729
 Warren, John D.,* Oct. 14 p 1208
 Watson, Benjamin, Dec. 23 p 1896
 Watson, Edwin J., Oct. 28 p 1330
 Welch, Pierce N., Nov. 4 p 1400
 Wells, Calvin,* Aug. 5 p 418
 Weston, Christopher, Nov. 25 p 1651
 Whitaker, N. E., Dec. 30 p 1942
 Whitney, Alfred R., Oct. 28 p 1330
 Willcox, Carl, Sept. 23 p 929

Obituary:

Williams, Watkin Y., Dec. 16 p 1846
 Witherbee, Thomas F., July 15 p 204
 Witte, Frederic O., Sept. 2 p 741
 Witte, Theodore F., Sept. 2 p 741
 Yuile, David, July 1 p 38
 Ohio Iron & Steel Company, Dec. 23 p 1898
 Oil Power Press, Heavy,* July 8 p 105
 Oil-Air Cock, Lunkenheimer,* July 8 p 89
 Oil Barrel Truck,* Nov. 11 p 1538
 Oil Cup, U. S. Indestructible,* Sept. 16 p 845
 Oil Filters at Gary, Burt,* Sept. 9 p 767
 Oil from Machined Pieces, Removing,* Sept. 23 p 906
 Oil Furnaces, Crucibles for, Dec. 2 p 1723
 Oil Stone Box, Pike's Reversible,* July 22 p 309
 Oil Stone, India, Combination Circular,* Oct. 14 p 1216
 Oiler, Brown Ring,* Sept. 23 p 920
 Oiling Systems, Aug. 26 p 625
 Olsen and Weiffenback:
 Experiments on the Case-Hardening of Steel by Gases, July 8 p 120
 Olsen Motor Driven Wire Testing Apparatus,* July 29 p 329
 Opener, Can, and Bottle Cap Lifter, Sure Cut,* Nov. 25 p 1690
 Orange Clipper,* Aug. 12 p 525
 Orange Clipper, Practical,* Nov. 4 p 1457
 Ordering Goods, The Retail Merchant, Sept. 23 p 961
 Orders for Rolling Stock, Large, Nov. 4 p 1405
 Ore:
 (See Lake Superior Ore.)
 Brazilian Deposits Extraordinary, July 8 p 131
 Dunderland Concentrates, July 15 p 187
 Early Handling of Ore on the Great Lakes, Dec. 16 p 1860
 Great Adirondack Deposit, Oct. 14 p 1143
 Heavy Imports to the United States in 1910, Sept. 9 p 785
 Increasing Average Size of Cargoes, Dec. 23 p 1877
 Lake Shipments by Ports, Oct. 14 p 1155
 New Agency for Foreign, Sept. 23 p 947
 New Swedish Vessel, Oct. 7 p 1058
 Pittsburgh Manufacturers Lease New Docks, Aug. 19 p 582
 Production in 1908, Sept. 9 p 808
 Record in Lake Shipments, Dec. 9 p 1806
 Remarkable Paper Finds, Sept. 2 p 711
 Swedish Lapland Deposits, Oct. 7 p 1074
 Swedish State Contract, First Year of, Sept. 2 p 710
 Texas Developments, Oct. 7 p 1106
 Thunder Bay Development, Sept. 9 p 781
 Ornamental Iron Shapes, Rolled, Sept. 30 p 1009
 Osann, Prof. B.:
 German Plan for Using Dry Air Blast, Dec. 2 p 1723
 Osborn Double Spindle Polishing and Buffing Lathe,* Oct. 28 p 1307
 Osborn Jolt Molding Machine,* Nov. 18 p 1560
 Osterberg Tin Plate Company, Oct. 14 p 1154
 Outerbridge, A. E., Jr.:
 "Growth" of Cast Iron After Repeated Heatings, Oct. 7 p 1086
 Outfit, Cobblers', Dalton,* Nov. 11 p 1536
 Outing of Little Rock Merchants, Sept. 16 p 886
 Oxhydic Process of Cutting and Welding Metals,* Nov. 11 p 1467
 Oxygen Flame for Cutting Metals, Sept. 2 p 711

P.

Pacific Coast Progress, July 8 p 156
 Padlock, Yale Bicentric Pin Tumbler,* Aug. 19 p 599
 Page, W. Marshall:
 Copper Clad Steel, Dec. 2 p 1711
 Page Woven Wire Fence Company, July 22 p 274
 Paint Brushes, Displaying and Selling,* Sept. 16 p 885
 Painting, House, Book on, Oct. 7 p 1121
 Paints for Metal Structures, Rust Preventing, Oct. 21 p 1250
 Paints, Net Weights in, Oct. 28 p 1368
 Panama:
 Canal Cableways,* Nov. 11 p 1472
 Canal Description,* July 1 p 6; July 8 p 114
 Drilling Machines at, July 29 p 336
 Half-Way Point in Canal Excavation, Oct. 28 p 1330
 Sault Lock Accident and the Panama Canal, July 1 p 33
 Scrap Bids, Sept. 23 p 934; Sept. 30 p 1009
 Paper Finds of Iron Ores and Coal, Remarkable, Sept. 2 p 711
 Parade Float, Industrial, and Model Hardware Store,* Nov. 11 p 1533
 Parcel Post:
 Mail Order and Parcel Post, Nov. 18 p 1602
 Legislation, Aug. 12 p 521
 Parkersburg Iron & Steel Company's Fire, Nov. 18 p 1570
 Parry Mfg. Company's Vehicle Catalogue, Oct. 7 p 1131
 Passaic Steel Works,* Sept. 30 p 984
 Patent Office, Work of, Oct. 28 p 1310
 Patent Treaty, Effects of German-American, Sept. 23 p 931
 Patents, Copper-Tin-Lead Alloy, July 1 p 32
 Pattern Shop, Electrical Equipment in the Mesta,* July 1 p 14
 Pavloff, M. A.:
 Rate of Combustion in Blast Furnaces, Aug. 26 p 618
 Paxton & Gallagher Company's Trademark,* Sept. 30 p 1032
 Pay Envelopes in Factories, Distribution of, July 15 p 197; July 22 p 272
 Peace, How the Ironmaster Has Promoted, July 8 p 124
 Peck Poppet Drop Hammers, Two New,* July 29 p 323
 Peck, Stow & Wilcox Company, Nov. 25 p 1691
 Peddlers' License Law, Nov. 18 p 1605
 Peerless Automatic Multi-Spindle Screw Machine,* July 1 p 16
 Peerless V Belt,* July 15 p 183
 Pelton-Francis Turbine Installation at Schaghticoke, N. Y.,* July 15 p 192
 Pencoyd Iron Works:
 Heaviest Steel Angle Ever Rolled, July 15 p 216
 Pennsylvania:
 Coal Output in 1908, Aug. 12 p 491
 Industrial Activity, Oct. 28 p 1310
 Taxation of Corporations, Dec. 9 p 1772
 Pennsylvania Engineering Works Receives Bethlehem Contract, Nov. 4 p 1429
 Pennsylvania-Hudson Tunnels, July 15 p 217
 Pennsylvania Railroad Company:
 Car and Locomotive Orders in 1909, Dec. 30 p 1938
 Electric Locomotives, Nov. 4 p 1412
 First Train from Harrison, N. J., to Long Island City, Nov. 25 p 1639
 Heaviest Freight Train Ever Hauled by One Locomotive, July 8 p 151
 Important Improvement, July 8 p 130
 Improvements in Ceneral West, Aug. 12 p 513
 Large New Ore Docks at Cleveland, Nov. 11 p 1515
 Seventy-Ton Steel Gondola Cars, Nov. 18 p 1554
 Wage List, July 1 p 51

- Pension List, American Steel & Wire Company's, July 8 p 151
- Percentage of Profit, Figuring, Sept. 16 p 888
- Percentage of Bessemer Lake Ores, Dec. 16 p 1841
- Percolating Coffee Machine, Six-Piece Set,* Nov. 18 p 1611
- Perkins, Geo. W.:
Profit Sharing, Benefits, Pensions, Dec. 2 p 1704
- Perkins Process of Refining Steel,* Nov. 18 p 1558
- Perkins Tack Plate Straightener,* Dec. 30 p 1925
- Perry, J. P. H.:
Reinforced Concrete for Factory Construction,* Oct. 21 p 1234
- Personal Factor in Industrial Operations, Sept. 16 p 852
- Philadelphia Foundry Foremen's Meeting, Sept. 23 p 933
- Philadelphia Foundrymen's Association, Sept. 9 p 775; Oct. 14 p 1165; Nov. 14 p 1470; Dec. 9 p 1795
- Philadelphia's High Pressure Fire System Extended,* Oct. 28 p 1305
- Philippine Islands:
Drawback Rulings on Shipments to, Aug. 26 p 639
- Hardware Trade with, July 8 p 160
- Imports and Exports, Sept. 30 p 995
- New Tariff Law, Aug. 12 p 490
- Phoenix Steel Company of Pittsburgh in Receiver's Hands, July 15 p 216
- Physical Properties of Iron-Copper Alloys,* Nov. 11 p 1476
- Picnic, Chicago Retail Hardwaremen's, July 22 p 300
- Piecework in Machine Shops, Oct. 28 p 1326
- Pig Iron:
Canadian Production, 1909, Aug. 12 p 491
- Electric Experiments in Sweden, Aug. 5 p 403
- Great Britain's Production First Half of 1909, Dec. 30 p 1940
- Large Purchase of Charcoal, Dec. 2 p 1700
- Largest Output for a Day, Oct. 7 p 1084
- Makers Attack Coke Freight Rates, Aug. 26 p 658
- Monthly Statement, July 8 p 134; Aug. 5 p 419; Sept. 9 p 790; Oct. 7 p 1092; Nov. 4 p 1413; Dec. 9 p 1792
- New Record in Steel Making Iron, Sept. 9 p 783
- Place of 1909 in Production, Dec. 16 p 1840
- Production in an Electric Shaft Furnace,* Sept. 16 p 831
- Remarkable Swings in Output, Oct. 14 p 1166
- Steel Making Iron in 1909, July 29 p 334
- Supply and Demand, Dec. 9 p 1784
- United States Production First Half 1909, July 22 p 269
- Pile Driver, Bucyrus Locomotive,* Dec. 23 p 1872
- Piling in Bridge Building, U. S.,* Nov. 18 p 1553
- Piling, Wemlinger Steel Sheet,* Sept. 9 p 772
- Pinion Wire, Aug. 19 p 599
- Pipe and Bolt Wrenches, R. & P. Company's,* Nov. 4 p 1455
- Pipe, German Methods in Manufacture of Cast Iron,* Dec. 16 p 1820
- Pipe Machine, Improved Bignall & Keeler,* Sept. 2 p 689
- Piping and Segregation in Steel Ingots,* Dec. 23 p 1880
- Pistol, Bayard Automatic Magazine,* Aug. 12 p 526
- Pistol Holsters, Gray Suede Leather,* July 15 p 238
- Pittsburgh:
Blast Furnaces, July 15 p 194
- Foundrymen's Association, Sept. 16 p 857; Dec. 9 p 1795
- Japanese Commercial Commissioners at, Nov. 11 p 1472
- Pittsburgh:
Manufacturers Lease New Ore Docks, Aug. 19 p 582
- Publicity Luncheon Club of, Nov. 25 p 1656
- Pittsburgh Gage & Supply Company's Rapid Growth, Oct. 28 p 1329
- Pittsburgh Steel Foundry: Hassel Motor Driven Emery Wheel Stand, Dec. 9 p 1776
- Pittsburgh Valve, Foundry & Construction Company:
Baltimore Contract for Fire Protection, July 1 p 33
- Valves and Pipe Fittings, Sept. 2 p 713
- Planer Drive, Cincinnati Two-Speed,* Aug. 26 p 631
- Planer, Rockford Heavy Duty,* Aug. 19 p 541
- Plastering and Brick Trowels, Sept. 30 p 1044
- Plate and Kettle Scraper, Klean-em,* Nov. 25 p 1690
- Plates, Rails and Shapes, New Specifications for,* July 1 p 26
- Pliers and Nippers, New Duty on, Aug. 26 p 636
- Plows, Disk, Unsalable,* Sept. 9 p 814
- Pocket Screw Driver Set,* July 1 p 75
- Polar Flaming Arc Lamp,* Dec. 9 p 1782
- Polishing and Drying by Hot Air,* Oct. 28 p 1322
- Polygon and Rafter Bevel, Calhoun,* Sept. 9 p 822
- Poor's Manual for 1909, July 8 p 89
- Population, Drift of, to the Cities, Sept. 30 p 1036
- Portable Furnace, Ruhmann's Patent,* Oct. 14 p 1214
- Portables, Gas and Electric, Sept. 30 p 1044
- Portland Iron & Steel Company:
Duty on Scrap Iron, July 8 p 126
- Post, George A.:
Railroads and the Public, Dec. 2 p 1730
- Post, Clothes, Removable Steel, with Adjustable Steel Hook,* Oct. 7 p 1132
- Post Drill, Noyes, No. 10,* Sept. 9 p 821
- Post Hole Digger, Hexagon,* July 22 p 308
- Post Office Auditor, Annual Report of, Nov. 11 p 1529
- Postage on Magazines and Trade Papers, Dec. 30 p 1936
- Postal Deficit, the \$20,000,000, Oct. 14 p 1210
- Posts, Clothes, Removable, Steel, Nov. 4 p 1458
- Potentiality of Small Streams, Nov. 25 p 1645
- Potter Process of Rolling,* Sept. 30 p 984
- Potts, Horace T. & Co., Will Sell Swedish Tool Steel, Oct. 21 p 1273
- Power Plant, Shop,* July 15 p 178
- Power Problems in Steel Works, Electric, Sept. 9 p 764
- Power Service Precedent, Public, July 22 p 271
- Power Supply, Centralization of Electric, Sept. 2 p 702
- Pratt & Whitney Company:
Australian Contract, July 29 p 354; Sept. 23 p 911
- High Power Drill,* Aug. 12 p 471
- Vertical Surface Grinder,* Dec. 30 p 1926
- Premium System, Some Results of a, July 8 p 125
- Premium System, New Purpose of the, Aug. 5 p 411
- Press:
Atlas, New Style Bench,* Dec. 2 p 1717
- Bliss, New Double Crank,* Sept. 16 p 850
- Ell Self-Feed Three Stroke No. 6 Hay,* Aug. 26 p 670
- Ferracute, New Double-Crank Toggle Drawing,* Oct. 7 p 1069
- Large Toledo,* Dec. 30 p 1926
- Press:
Ohl, Heavy Power,* July 8 p 105
- Queen City, New Double Acting,* Aug. 19 p 545
- Springfield, New Pneumatic,* Dec. 2 p 1709
- Standard, New Hand,* Nov. 4 p 1403
- Pressed Steel Car Strike, Aug. 5 p 417
- Prevention of Rust in Reinforcement for Concrete, Oct. 21 p 1251
- Prevention of Waste in Manufacturing, Aug. 26 p 636
- Price, Charles S.,* Nov. 25 p 1630
- Prices Advancing by Monthly Steps, Machine Tool, Oct. 14 p 1166
- Prices, Manufacturers', to Retail Merchants, Sept. 16 p 887
- Prices, Manufacturers', to Small Jobbers, Oct. 7 p 1125
- Prices, Retail Store, on Hardware, Oct. 28 p 1366
- Probing the Express Companies, Nov. 4 p 1447; Nov. 11 p 1528
- Producers, Gas:
And Fuel Oil in the Navy, Dec. 23 p 1875
- Hill Anthracite,* Dec. 2 p 1718
- Hill Bituminous Gas,* Nov. 11 p 1480
- New York Producer and Gas Engine,* Nov. 4 p 1384
- Tests, Nov. 11 p 1497
- Thompson Suction,* Aug. 12 p 478
- Production Statistics:
Abrasive Material, 1908, Sept. 9 p 791
- Allegheny County's Iron and Steel Output, 1908, Sept. 2 p 705
- British Iron Ore and Coal Production, 1908, Sept. 2 p 717
- Canadian Pig Iron, 1909, Aug. 12 p 491
- Chromic Iron Ore, 1908, July 29 p 323
- Copper Production and Stocks, Monthly, Aug. 12 p 506; Sept. 16 p 872; Oct. 14 p 1168; Nov. 11 p 1515; Dec. 16 p 1848
- Graphite, 1908, Sept. 23 p 917
- Fluorspar, 1908, Aug. 19 p 563
- Forgings, 1908, Sept. 2 p 703
- French Steel Production, Nov. 4 p 1389
- Illinois Output of Coke, 1908, Aug. 12 p 506
- Indiana Coke Production, 1908, Aug. 19 p 552
- Manganese and Manganiferous Ores, 1908, Aug. 19 p 561
- Pennsylvania Coal Output, 1908, Aug. 12 p 491
- Pennsylvania Coke Production, 1908, Aug. 26 p 621
- Pig Iron Record, Sept. 2 p 729
- Steel Corporation Records in October, Nov. 18 p 1571
- Steel Corporation's Share of Production, 1908, Sept. 23 p 925
- Steel Making Pig Iron in 1909, July 29 p 334
- Tin, 1908, Aug. 26 p 653
- United States Coal Output, 1908, Aug. 19 p 559
- United States Coke Output, 1908, Sept. 16 p 856
- United States Iron Ore Output, 1908, Sept. 9 p 808
- United States Mineral Production, 1908, Dec. 2 p 1719
- United States Pig Iron Output, First Half, 1908, July 22 p 269
- Profession of Engineering, Dec. 9 p 1774
- Profit, Figuring Percentage of, Sept. 16 p 888
- Profit Sharing, Benefits, Pensions, Dec. 2 p 1704
- Prompt Delivery, Sept. 30 p 1037
- Proposed Duty on Pliers, Nippers, &c., July 1 p 32
- Protection of Mine Investors, Sept. 23 p 934
- Protractor, Bevel, Starrett,* July 29 p 374
- Prybil Balanced Elliptical Chuck,* Nov. 25 p 1640
- Publicity Luncheon Club of Pittsburgh, Nov. 25 p 1656
- Public Service Board,* Oct. 7 p 1134

Pudding Stirrer, Reynold's Ball Joint,*
Nov. 4 p 1458
Puget Sound Iron & Steel Works, July
1 p 56
Pullet Belt Shifter,* Aug. 5 p 401
Pulley, Maymont Self-Oiling Loose,*
Aug. 26 p 630
Pump, French, Cordeaux,* July 15 p
238
Pump, New Fales & Jenks Rotary Fire,*
Sept. 23 p 910
Pump, Windmill Force, with Ratchet
Head,* Nov. 18 p 1614
Pumping Outfit, Portable Gasoline En-
gine,* Aug. 5 p 389
Punch and Squaring Shear, Large
Bertsch Combined Multiple,* Oct.
7 p 1064
Punch, Piercing Seal,* Aug. 19 p 599
Purchasing Agents, Edison, Association
of, Sept. 9 p 813
Putting Goods on the Market, Hard-
ware Manufacturer's Experience
in, July 22 p 304
Pyrometer, Bristol Quick-Reading Elec-
tric,* Aug. 26 p 625
Pyrometer, Brown Electric Recording,*
July 15 p 176

Q.

Quality Figures, Calculation of, Aug. 12
p 488
Quality Figures in Vanadium Steels,
July 29 p 339
Queen City Punch & Shear Company:
New Double Acting Press,* Aug. 19
p 545
Quick Unloading Car Chute,* Oct. 7 p
1080

R.

Racine Motor-Driven Power Hack
Saw,* Dec. 9 p 1769
Rack Head and Cog, Kerco,* Sept. 23
p 970
Racks:
Accommodating Manufacturers' Cir-
culars, Booklets, &c.,* Oct. 14 p
1213
Ashby's Improved Wire Cloth,* Nov.
4 p 1456
Bowser Wire Cloth Display,* July 1
p 77
Pot Lid,* Nov. 25 p 1682
Sash Chain,* Sept. 2 p 740
Washboard,* Nov. 25 p 1682
Rafter and Polygon Bevel, Calhoon,*
Sept. 9 p 822
Railroads:
And the Public, Dec. 2 p 1730
Automobile, July 22 p 255
Building in Asia, Sept. 2 p 694
Equipment Orders, Sept. 2 p 708; Nov.
18 p 1574; Nov. 25 p 1650; Dec.
2 p 1728; Dec. 23 p 1907
Is Railroad Equipment Deficient?
Oct. 21 p 1247
Large Orders for Rolling Stock, Nov.
4 p 1404
New York Club, Annual Meeting, Nov.
25 p 1646
One Cause of Wrecks, Aug. 19 p 558
Rails:
Bureau of Standards to Supervise
Tests, Aug. 19 p 560
Defects,* July 22 p 266
E. C. & M. Handling Magnets,* Aug.
5 p 409
Harriman Specifications for 1909,
Aug. 5 p 413
Heber Self-Tightening Joint,* July 22
p 263
International Pool Incident, Dec. 23
p 1890
International Syndicate, Nov. 25 p
1652
Life of Electric Railroad, Aug. 5 p
391
Need of Specifications for Light, Aug.
19 p 558
New Specifications for Rails, Shapes
and Plates,* July 1 p 26
Nine Months' Test of Titanium Steel,*
Aug. 5 p 394
Rolling Methods,* Sept. 16 p 838

Rails:

Specifications for Light, Sept. 9 p
784; Oct. 28 p 1328
Railway Business Association:
Annual Meeting, Oct. 21 p 1311
Dinner, Nov. 25 p 1631
Railways in German Iron Works, Sus-
pension,* Aug. 26 p 609
Ramsey, F. W.:
Compensation for Accidents, Dec. 23
p 1876
Range Bidding Contest,* Nov. 18 p 1603
Range, New, for the Tranksgiving Din-
ner, Nov. 18 p 1609
Ransom Disk Grinder, New,* Oct. 14 p
1158
Rasmus Electric Hoist,* Oct. 14 p 1164
Ratchet Spanner, Shroeder,* Oct. 7 p
1133
Rateau-Smoot Exhaust Steam Turbo-
Generator Contracts, Nov. 25 p
1665
Rauth, Fritz:
Rolled Ornamental Iron Shapes,
Sept. 30 p 1009
Razor Case, Clauss Silent Salesman No.
24,* Sept. 16 p 892
Razor Hones, Ambicut,* July 8 p 165
Razor, Safety, Clark's,* Oct. 14 p 1215
Razor, Safety, Sensation,* Aug. 26 p 671
Razor, Safety, Strop, Automatic,
Pullman,* July 1 p 76
Razor Sharpener, Keenoh Automatic,*
July 8 p 167
Razor Strop, Automatic,* July 1 p 75
Razor Strop, Carborundum,* Nov. 25 p
1690
Razor Strop, Clauss Corrug,* Oct. 14
p 1214
Reading Hardware Company's Lawn
Mowers, Nov. 4 p 1455
Reamer Holder for Boring Mills, Col-
burn Floating,* Nov. 25 p 1638
Rebuilding of Iron and Steel Stocks,
Sept. 30 p 1002
Reciprocity with Hydraulic Power
Plants, Aug. 19 p 557
Records:
Blast Furnace, Oct. 14 p 1155
Crucible Steel Furnace, July 8 p 113
Gayley Dry Air Blast Pressure,* Oct.
21 p 1233
Iron Ore Output at Port Henry, Oct.
7 p 1085
Lake Ore Shipments, Dec. 9 p 1806
Pig Iron Production, Sept. 2 p 729
Steel Corporation, Nov. 18 p 1571
Steel Making Pig Iron, Sept. 9 p 783
Reducer, Foote Bros., Style D. Speed,*
July 29 p 326
Reducing Fire Insurance Rates,* Aug.
26 p 661
Red Wing Adjustable Bolt and Clamp-
ing Devices,* Nov. 18 p 1565
Reels:
Hose, Detachable,* Aug. 12 p 525
Rope,* Nov. 25 p 1682
Wire,* Nov. 25 p 1682
Refined Iron & Steel Company's Plant
to be Sold, Aug. 19 p 541
Refining of Steel, Electric, Aug. 19 p
542; Nov. 4 p 1400
Refining Steel, Perkins Process of,* Nov.
18 p 1558
Refrigerators, Maine Mfg. Co.'s 1910,
Oct. 14 p 1213
Register, Hendricks' Commercial, Nov.
11 p 1528
Regulation, Trade, Nov. 11 p 1492
Reinforced Concrete for Factory Con-
struction,* Oct. 21 p 1234
Reinforced Tile Roof Company:
New Tile Roofing for Factory Use,
Aug. 12 p 479
Reliance Tube Company Bought by
Allegheny Steel Company, July 8
p 123
Remington Solid Breech Hammerless
Repeater,* Aug. 5 p 453
Reminiscences, Iron Trade, Nov. 11 p
1494
Removing Oil from Machined Pieces,*
Sept. 23 p 906
Repairing Steel and Iron Rolls,* Dec.
16 p 1838

Republic Iron & Steel Company:

Annual Report, Aug. 26 p 638
Large Plans for Extensions, Oct. 7 p
1108
Stock Issue for Improvements, July
29 p 355
Resale Prices, Machinery, Dec. 16 p
1845
Research Scholarship, Andrew Carnegie,
Dec. 9 p 1782
Retailers, Large, and Small Jobbers,
Sept. 16 p 887
Retail Store Prices on Hardware, Oct.
28 p 1366
Returned Goods, Sept. 30 p 1037; Nov.
4 p 1453
Reversing Rolling Mills, Electrically
Driven, Nov. 4 p 1392
Revolver, Smith & Wesson .38 Per-
fected,* Oct. 28 p 1369
Revolving Portable Elevator, New
York, Oct. 28 p 1368
Reynolds Radial Screw Driving Ma-
chine,* Dec. 2 p 1716
Rhead, E. L.:
Corrosion of Copper and Brass,* Dec.
23 p 1883
Rice, S.:
Slick Type of Blowing Engine,* Dec.
9 p 1773
Rifles:
Automatic and Hand Operated,
Standard High Power,* Aug. 5 p
454
Bayard Auto-Cocking & Ejecting
Semi-Automatic,* Aug. 12 p 526
Repeating, Stevens' Visible Loading,
No. 70, Nov. 11 p 1535
Right Angle Line Shaft Transmission,*
Sept. 2 p 688
Ripley, C. M.:
Compulsory Factory Ventilation, July
8 p 94
Rivet Spinning Machines, New Grant,*
Sept. 16 p 851
Riveting Machine, Greiner,* Nov. 18 p
1563
Road, A Model Pennsylvania, Sept. 2 p
701; Sept. 30 p 982
Road Wear by Automobile Traffic, Ac-
celerated Test of, July 15 p 186
Robertson Drill & Tool Company's New
Factory, Oct. 28 p 1317
Robertson, Kenneth, Tribute to, Oct. 21
p 1248
Robertson Tilting Drill Table,* Aug. 12
p 477
Robinson Boring Tool Holder,* Sept. 2
p 699
Robinson Grinder,* Sept. 2 p 701
Rockey and Eldridge:
Coating Iron and Steel with Copper
or Brass by Dipping, Dec. 2 p
1729
Rockford Heavy Duty Planer,* Aug. 19
p 541
Rockford 10-in. Bench Drill,* Nov. 4 p
1393
Rockford Motor Driven Sensitive Drill,*
Sept. 2 p 705
Rockwell Company, W. S.:
Internally Fired Helical Furnaces,
Oct. 14 p 1168
Rockwell Furnace Company:
Internally Fired Helical Furnaces,
Oct. 14 p 1168
Rockwell Inclined Rotary Furnace,*
Sept. 2 p 698
Rodgers, A. G.:
Carborundum and Carborundum Pro-
ducts Used in the Foundry, Nov.
11 p 1482
Roe & Conover's New Warehouse in
Newark, N. J., Dec. 23 p 1889
Rogers-Brown Iron Company to Build
Two Blast Furnaces, Dec. 30 p
1938
Roll, Chilled, Largest in the World,
July 29 p 327
Rolled Ornamental Iron Shapes, Sept.
30 p 1009
Roller, Lawn and Garden, Water Bal-
last,* Aug. 5 p 455
Roller, Lawn and Tennis Court,* July
1 p 77

- Roller Racing Skate, Henley Improved,* July 1 p 75
- Roller Skates:
Hy-Grade and Hy-Spede,* Oct. 21 p 1296
- Nasco Extension Truss Bridge,* Aug. 19 p 598
- Rolling Ladder Adjustable Shelf, Putnam,* Sept. 2 p 750
- Rolling Mills:
Discussions by Electrical Engineers, July 8 p 128
- Electrically Driven, July 8 p 129
- Electrically Driven Reversing Mills, Nov. 4 p 1392
- Electric Control for Motors,* Sept. 9 p 778
- Electric Drives and Electric Control, Nov. 18 p 1550
- Function of Fly Wheels in Connection with Electrically Operated, July 22 p 251
- Governing Engines,* Dec. 23 p 1886
- Motors, July 8 p 111
- Rail Rolling Methods,* Sept. 16 p 838
- Rolling Speed and Annealing, Dec. 2 p 1701
- Unique Rolling Machine,* Oct. 21 p 1232
- Rolling Stock, Large Orders for, Nov. 4 p 1405
- Rolls, Repairing Steel and Iron,* Dec. 16 p 1838
- Roofing for Factory Use, New Tile, Aug. 12 p 479
- Rope, Handling Small,* Sept. 2 p 744
- Rope Reels,* Nov. 25 p 1682
- Rosenbain, Walter:
"Slag Inclosures" in Steel,* Nov. 18 p 1556
- Rotary Crane, German Electric,* Sept. 2 p 700
- Rotary Fire Pump, New Fales & Jenks,* Sept. 23 p 910
- Rotary Furnace, Rockwell Inclinable,* Sept. 2 p 698
- Rothert, E. H.:
Titaniferous Iron Ore, Dec. 9 p 1777
- Rowbottom Cam Cutter,* Dec. 30 p 1928
- Rules:
Architects' and Engineers', Blix's,* July 8 p 166
- Shrinkage, Handy,* July 29 p 372
- Slide, Magnifier for,* Aug. 12 p 527
- Runners, Wagon, Detachable,* Nov. 11 p 1535
- Russell & Erwin Mfg. Company's New Catalogue, Oct. 7 p 1130
- Russwin Door Check and Holder, Combined,* Nov. 18 p 1613
- Rust in Reinforcement for Concrete, Prevention of, Oct. 21 p 1251
- Rust-Preventing Paints for Metal Structures, Oct. 21 p 1250
- Rust Preventive, Vatudrip, July 15 p 187
- Ryerson & Son to Manufacture Machine Tools, Oct. 7 p 1061
- Ryerson Flue Cutting Machine,* Dec. 9 p 1765
- S.**
- St. Louis Blast Furnace, Nov. 4 p 1382
- St. Louis Centennial, Sept. 9 p 784;
Sept. 23 p 960
- Sad Irons:
Gasoline and Alcohol,* Aug. 12 p 526
- Self-Heating Gasoline, Ideal,* Aug. 5 p 453
- Safety Appliances in Factories, Dec. 16 p 1821
- Safety Corn Knife,* Oct. 28 p 1370
- Safety Razor Blades and Easel Display,* Nov. 4 p 1448
- Safety Razor:
Clark's,* Oct. 14 p 1215
- Sensation,* Aug. 26 p 671
- Sailors' Institute, Iron Ore and Shipping Interests to Build a, Dec. 2 p 1738
- Salem, Damaged Turbine of the, July 15 p 203
- Sand Mixer and Sifting Machine, Bilz,* Aug. 26 p 630
- Sand Paper and Tack Cabinet, Nov. 25 p 1682
- Sash Chain Rack,* Sept. 2 p 740
- Sash Lock:
J. B. Automatic,* Sept. 16 p 893
- Ventilating, Pittsburgh,* Aug. 19 p 598
- Sault Lock Accident and the Panama Canal, July 1 p 33
- Sang, Alfred:
Electro-Cementizing,* Nov. 11 p 1484
- Saving in Shop Operations, Time, Sept. 2 p 707
- Savings Bank Life Insurance, Dec. 30 p 1924
- Saw Clamp, Diamond Edge,* July 22 p 308
- Saw Frame, Coping, Irving No. 157,* Sept. 2 p 751
- Saw, Racine Motor-Driven Power Hack,* Dec. 9 p 1769
- Saw, Key Hole, Simonds Adjustable,* Aug. 5 p 456
- Saw Set, Hammer, Foote,* Sept. 16 p 893
- Saws, Tool Case for,* Aug. 19 p 587
- Saw Sharpening Machine, Hunter,* Sept. 30 p 996
- Saw Table, Silver's New,* Sept. 9 p 775
- Sawing Machine, Newton Special Crank Shaft,* Sept. 23 p 908
- Scarcity of Machine Tools, Present, Nov. 25 p 1645
- Schatz, Adam E.:
Eloesser Steel Belt, Oct. 7 p 1078
- Schedules, Census Iron and Steel, Nov. 25 p 1648
- Scherzer Bridge Contracts, Nov. 11 p 1474
- Schieren Company, Charles A.:
Largest Leather Belt,* Nov. 25 p 1642
- Schools, Cincinnati Continuation, Aug. 5 p 414
- Scissors, Tree Brand,* Oct. 28 p 1369
- Scotch and a Great American Engineer, Eminent,* Nov. 4 p 1383
- Scrap:
Duty on, July 8 p 126; Nov. 18 p 1569
- Duplex Process and, Sept. 23 p 930
- Panama Bids, Sept. 23 p 934; Sept. 30 p 1009
- Shop Heap and Its Lesson, Nov. 18 p 1568
- Scraper:
Ice,* July 29 p 375
- Ideal Hardwood Floor,* Sept. 9 p 820
- Klean-em Plate and Kettle,* Nov. 25 p 1690
- Screen:
American Roller Window,* July 22 p 309
- Diamond Crimped,* Sept. 23 p 968
- Frameless Insect,* Sept. 2 p 751
- Screen Doors, Standard for Displaying Sample,* Aug. 5 p 450
- Screens and Stove Boards, Combination Case for,* July 22 p 304
- Screw Anchors or Shields, One-Part Expansion,* Nov. 25 p 1689
- Screw Cabinet,* Nov. 25 p 1682
- Screw Driver Set, Pocket,* July 1 p 75
- Screw Driving Machine, Reynolds Radial,* Dec. 2 p 1716
- Screw Cutting Company of America:
Large Brass Helices,* Sept. 23 p 907
- Screw Machine:
Acme,* Dec. 2 p 1702
- Improved Tilted Turret,* July 1 p 18
- No. 1 Tilted Turret,* Dec. 2 p 1706
- Peerless Automatic Multi-Spindle,* July 1 p 16
- Screw Plates, Taps and Dies, A. S. M. E. Standard, Sept. 2 p 748
- Seal and Strap, Nailless Box, Brooks',* Aug. 19 p 599
- Seamer, New Leffler Double,* July 22 p 259
- Seattle, Metal Trades Working Exhibits at, Aug. 19 p 552
- Sections of Iron and Steel, Special,* Sept. 23 p 912
- Seed Dropper, Harriman,* Nov. 25 p 1689
- Segregation and Piping in Steel Ingots,* Dec. 23 p 1880
- Segregation and the Size of Steel Ingots,* Nov. 4 p 1399
- Semi-Centennial of a Militant Union, Aug. 12 p 487
- Seneca Falls Mfg. Company:
Motor Driven Star Lathe,* Nov. 25 p 1629
- New Model Star Lathe,* Aug. 26 p 632
- Set, Miter Box,* Nov. 18 p 1614
- Set, Saw, Hammer, Foote,* Sept. 16 p 893
- Shades and Candlesticks,* Aug. 5 p 452
- Shafts at Lake Iron Mines, Concrete,* Aug. 26 p 622
- Shapes, Plates and Rails, New Specifications for,* July 1 p 26
- Sharon Steel Hoop Company's Extensions, Sept. 30 p 1009
- Sharpener, Razor, Keenoh Automatic,* July 8 p 167
- Shear and Punch, Large Bertsch Combined Multiple Squaring,* Oct. 7 p 1064
- Shears:
Bertsch Sheet, with Automatic Feed,* Aug. 12 p 479
- Buffalo Hand Power Slitting,* Oct. 14 p 1153
- Glass,* Aug. 12 p 525
- Leather,* Aug. 12 p 525
- Mesta Large Steel Lever,* Sept. 16 p 846
- Tinners, Furnacemen and Farmers,* Oct. 28 p 1370
- Wais Patent Universal,* July 29 p 327
- Watson-Stillman Hydraulic,* Aug. 19 p 535
- Sheet and Tin Plate Situation, July 8 p 146
- Sheet Piling, Wemlinger Steel,* Sept. 9 p 772
- Sheffield Gas Power Company, Oct. 14 p 1157
- Sheffield Steel and the New Duty, High Priced, Aug. 12 p 489
- Shelf, Adjustable, Rolling Ladder, Putnam,* Sept. 2 p 750
- Shelves, Pillar, for Feather Dusters,* Nov. 25 p 1682
- Sheridan, J. E.:
Under-Flue Coke Plant at Dawson, N. M.,* Aug. 5 p 400
- Sheridan, Richard B.:
Early Handling of Iron Ore on the Great Lakes, Dec. 16 p 1860
- Sherman Act and Consolidations, Nov. 25 p 1644
- Sherman Anti-Trust Law, Dec. 23 p 1895
- Sherwin-Williams Company:
Manufacture of Tin Cans,* Sept. 2 p 681
- Shields or Screw Anchors, One-Part Expansion,* Nov. 25 p 1689
- Shield, Wind, I. & M.,* July 29 p 372
- Shipbuilding Costs in Great Britain, Low, August 12 p 477
- Shipbuilding in Fiscal Year 1909, American, July 8 p 93
- Shipbuilding Now Active, Lake, Sept. 9 p 781
- Shipbuilding Plant for Port Arthur, Canada, Aug. 19 p 560
- Shippers in the Dark Regarding New Demurrage Rules, Oct. 7 p 1082
- Shoe, Horse, Cushion Interchangeable,* Nov. 18 p 1612
- Shooting Coats, Norleigh Diamond,* Aug. 12 p 524
- Shop Drawings, Details of Limits in, Dec. 23 p 1892
- Shop Operations, Time Saving in, Sept. 2 p 707
- Shop Power Plant,* July 15 p 178
- Shot Guns:
New Model 26, Repeating, Marlin,* Nov. 11 p 1538
- Stevens Six Shot Repeating,* July 22 p 310
- Shovels and Spades, Self-Sharpening, N. & M., Oct. 28 p 1371
- Shovels, Vulcan Electric,* Aug. 5 p 396

- Shower, Zephyr,* July 15 p 237
Shrinkage Rules, Handy,* July 29 p 372
Shutter Fasteners, Zimmerman Improved,* July 29 p 371
Sibley High Speed Drill, New,* Oct. 28 p 1306
Sight, Attachments, Level,* July 29, p 374
Silo, Bushnell, Aug. 5 p 452
Silver and Dish Drainer Combined, Royal,* Oct. 7 p 1133
Silver's New Saw Table,* Sept. 9 p 775
Simmons Advertising Service, Nov. 4 p 1453
Simon, Gustav:
 Manufacture of Cast Iron Pipe,* Dec. 16 p 1820
Simonds Mfg. Company, July 1 p 63
Simple Machines as Special Tools, Nov. 11 p 1492
Sink Bracket, Griffin Adjustable,* Nov. 4 p 1455
Sink Strainer, Enameled,* Sept. 23 p 970
Skates:
 Barney & Berry's, Sept. 2 p 750
 Henley Improved Roller Racing, July 1 p 75
 Hy-Grade and Hy-Spede Roller,* Oct. 21 p 1296
 Nasco Extension Truss Bridge, Roller,* Aug. 19 p 598
 Nasco Improved, Toe Clamp,* July 1 p 78
 Winslow Women's Lever Clamp, Ice,* July 15 p 238
Sirocco Blower Patent Sustained, Dec. 2 p 1721
Skimmings, Method of Saving Brass, Oct. 28 p 1330
Skinner Special Gear Chucks, New,* Sept. 2 p 697
"Slag Inclosures" in Steel,* Nov. 18 p 1556
Sleds:
 Flexible Flyer, Racer,* Sept. 30 p 1045
 Little Giant, Folding,* Aug. 5 p 452
 Sleepers, Doll, Go-Carts and Carriages, July 15 p 237
 Slicer, Apple, Rapid,* Sept. 2 p 750
 Slick Type of Blowing Engine,* Dec. 9 p 1773
 Slide Rules, Magnifier for,* Aug. 12 p 527
 Sliding Door Lock, Richards No-Break, No. 500,* Sept. 2 p 749
 Slips, Address, Gummed, for Use on Envelopes,* Aug. 5 p 451
 Slotting Machine, Newton 15-in. Stroke,* Nov. 25 p 1637
 Smelting in Sweden, Electric, Aug. 19 p 545
 Smelting Provision of New Tariff Law, Error in Bonded, Oct. 21 p 1249
 Smith, J. Kent, and the American Vanadium Industry, Aug. 12 p 485
 Smith, Jesse M.:
 Profession of Engineering, Dec. 9 p 1774
 Snap, Yankee Martingale,* Sept. 30 p 1046
 Snips, Tinnners', Hold-Fast,* Aug. 19 p 600
 Socket, Drill, Paragon,* July 22 p 308
 South African Trade Conditions, Sept. 16 p 844
 South America, Selling Hardware to, Dec. 2 p 1724
 South Baltimore Car Works Sold, Aug. 5 p 395
 Southern Iron & Steel Company, July 29 p 341; Oct. 7 p 1085; Nov. 11 p 1500
 Spades and Shovels, Self-Sharpening, N. & M., Oct. 28 p 1371
 Spanner, Ratchet, Schroeder,* Oct. 7 p 1133
 Sparks of Steel, Grinding,* Sept. 23 p 918
 Specht, H. C.:
 Function of Fly Wheels in Connection with Electrically Operated Rolling Mills, July 22 p 251
 Special Sections of Iron and Steel,* Sept. 23 p 912
 Special Steels, Sept. 23 p 916
 Specification, Buying Carbon Tool Steel on, Aug. 12 p 483
 Specifications for Cast Iron Car Wheels, Aug. 5 p 414
 Specifications for Light Rails, Sept. 9 p 784; Oct. 28 p 1328
 Specifications for Light Rails, Need of, Aug. 19 p 558
 Specifications for 1909, Harriman Rail, Aug. 5 p 413
 Specifications for Shapes, Plates and Rails, New,* July 1 p 26
 Specifications for United States Navy, Tool Steel, Aug. 12 p 480
 Speculative Buying, Aug. 12 p 486
 Speed Alarm for Motor Vehicles, Excess, July 15 p 177
 Speed Indicator, B. & S.,* Sept. 30 p 1046
 Speed Reducer, Foote Bros. Style D,* July 29 p 326
 Spencer, William H.:
 Selling Hardware to South America, Dec. 2 p 1724
 Spinning Machines, New Grant Rivet,* Sept. 16 p 851
 Spray Brush, Knickerbocker,* Oct. 28 p 1369
 Spring Steel, Heat Treatment of,* Oct. 7 p 1070
 Springer, J. F.:
 Panama Canal,* July 1 p 6; July 8 p 114
 Springfield Pneumatic Press, New,* Dec. 2 p 1709
 Stackhouse, Powell,* Nov. 25 p 1630
 Staff Turning Machine, Waltham Automatic,* Nov. 4 p 1391
 Stalls and Stanchions, Cow, Loudon's Sanitary,* Sept. 23 p 971
 Standard Hand Press, New,* Nov. 4 p 1403
 Standard Nipple & Tool Company, Oct. 7 p 1079
 Standard Roller Bearing Company, Nov. 18 p 1574
 Standard Special Draw Bench,* Nov. 4 p 1390
 Standard Steel Car Company Buys Middletown Car Plant, Sept. 9 p 801
 Standing Up for the Home Town, Sept. 23 p 958
 Stands, Bird Cage, Brass, Novelties in,* Oct. 21 p 1295
 Stands, Match, Candle Holders and Sticks and, Oct. 28 p 1368
 Stanley Rule & Level Co.'s New Catalogue, Aug. 26 p 670
 Star Drilling Machine Company:
 Drilling Machines at Panama, July 29 p 336
 Star Lathe, Motor-Driven,* Nov. 25 p 1629
 Star Lathe, New Model,* Aug. 26 p 632
 Starters, E. C. & M. Mill Type Motor,* Aug. 12 p 485
Steel:
 Active, Works and Rolling Mills, in 1908, Sept. 2 p 697
 Alloy for Motor Car Construction, July 8 p 95
 Business of 1909 and Its Distribution, Aug. 5 p 412
 Buying Carbon Tool on Specification, Aug. 12 p 483
 Copper Clad, Dec. 2 p 1711
 Difficult Casting Job,* Sept. 23 p 921
 Effect of Titanium on, Dec. 9 p 1790
 Electric Refining of, Aug. 19 p 542; Nov. 4 p 1400
 Electric Welding in, Goods, Sept. 2 p 748
 Flyer,* Sept. 2 p 750
 Perkins Process of Refining,* Nov. 18 p 1558
 Special, Sept. 23 p 916
 Specifications for the United States Navy, Tool, Aug. 12 p 480
 Treated for High Service,* Nov. 25 p 1632
 "Very Best" Letters and Figures, Oct. 7 p 1131
Steiro Castings,* Sept. 2 p 703
Stevens-Duryea Auto Engine Testing,* Sept. 23 p 903
Stitcher Hardware Company, New Establishment of,* Sept. 23 p 962
Stimpson, H. F.:
 Prevention of Waste in Manufacturing, Aug. 26 p 636
Stimulating Fall Business, What Hardwaremen are Doing, Sept. 30 p 1032
Stirrer, Pudding, Reynold's Ball Joint,* Nov. 4 p 1458
Stock, Die, Handy,* Nov. 11 p 1537
Stock, Invoicing, New Method of,* July 8 p 155
Stocks, Rebuilding of Iron and Steel, Sept. 30 p 1002
Stone, Carborundum Carpenters' Round Bench,* Nov. 25 p 1689
Stool Chair, Improved Modern,* Nov. 18 p 1612
Stop, Auger Bit, Anti-Friction,* Nov. 25 p 1689
Storage Battery Car, Jeffrey,* Aug. 19 p 541
Store Arrangement, Novel Features of,* Oct. 7 p 1124
Store Fixtures, Home Made,* Nov. 25 p 1682
Store, Model Hardware, and Industrial Parade Float,* Nov. 11 p 1533
Stove:
 Amsler Hot Blast,* Nov. 25 p 1643
 Foote-Lamond New Hot Blast,* Oct. 14 p 1159
 Nelson Hot Blast,* July 15 p 194
 Stove Boards, Screens and, Combination Case for,* July 22 p 304
 Stove Manufacturers Discuss Molders' Wages, Dec. 2 p 1731
Stoves:
 And Ranges, Working Up Fall Business In,* Oct. 7 p 1122
 For Denatured Alcohol,* Nov. 18 p 1613
 Hemp, Gas Heating,* July 22 p 310
 Universal Alcohol,* July 8 p 164
 Westinghouse Electric Toaster,* July 1 p 75
Straightener, Perkins Tack Plate,* Dec. 30 p 1925
Straightening Crooked Handles for Axes, Sledges, Tools and Mauls,* July 8 p 163
Strainer:
 Enameled Sink,* Sept. 23 p 970
 Enterprise Multiple,* July 8 p 95
 Lock Lip,* Oct. 7 p 1133
Street, A. L. H.:
 Judicial Decisions, July 15 p 201; Aug. 5 p 398; Aug. 12 p 507; Aug. 19 p 555; Aug. 26 p 651; Sept. 2 p 714; Sept. 30 p 1001; Oct. 21 p 1239; Nov. 4 p 1404; Dec. 2 p 1751; Dec. 30 p 1956
Strike, Pressed Steel Car, Aug. 5 p 417
Strong, Robert M.:
 Promising Report on Alcohol Engines, Nov. 18 p 1564
Strop, Razor:
 Automatic,* July 1 p 75
 Carborundum,* Nov. 25 p 1690
 Clauss Corrug,* Oct. 14 p 1214
Stroppler:
 Fleming, Razor, Nov. 11 p 1535
 King of All, Improved,* Sept. 2 p 748
 Pullman Automatic Safety Razor, July 1 p 76
 Safe-T-Blade,* Sept. 30 p 1047
 Safety Razor Blade,* July 1 p 78
Stumm Works:
 Suspension Railways in German Iron Works,* Aug. 26 p 609
Sturtevant Company's Growth, B. F., July 29 p 325
Submarine Trials, Oct. 7 p 1079
Sullivan Machinery Company:
 Notable Contracting Work, Oct. 28 p 1326
Sullivan System's Assistant Buyer, Oct. 14 p 1212
Sulphur and Barium in Fluorspar,* Aug. 5 p 392
Sulphur in Steel, Determining,* Oct. 28 p 1318

Superior Steel Company's Improvements, July 29 p 339
 Suspension Railways in German Iron Works,* Aug. 26 p 609
 Susquehanna Iron Company's Affairs, Oct. 28 p 1323
 Swaging Machine, Heavy Langelier,* Sept. 16 p 843
 Sweden:
 Electric Smelting in, Aug. 19 p 545
 Electric Pig Iron Experiments in, Aug. 5 p 403
 First Year of State Ore Contract, Sept. 2 p 710
 Iron Ore Deposits of, Lapland, Oct. 7 p 1074
 Iron Ore, United States Imports of, Sept. 16 p 871
 New Swedish Ore Vessel,* Oct. 7 p 1058
 Pig Iron Production in an Electric Shaft Furnace,* Sept. 16 p 831
 Swedish and Norwegian Electric Smelting, Dec. 2 p 1703
 System Bug, The, Sept. 9 p 818
 System Necessary to Reduce Accident Costs, Sept. 9 p 783

T.

Table, Card, Folding, Tip-Top, Oct. 7 p 1131
 Tack and Sandpaper Cabinet,* Nov. 25 p 1682
 Tack Plate Straightener, Perkins,* Dec. 30 p 1925
 Tantalum as a Steel Alloy, July 22 p 268
 Taper Gauge,* Sept. 9 p 822
 Tap Hobbing Machine, Hoefer,* Aug. 5 p 395
 Tapping and Drilling Machine, Cincinnati High Speed,* Sept. 9 p 761
 Taps, Dies and Screw Plates, A. S. M. E. Standard, Sept. 2 p 748
 Tariff:
 And Freight Rates, Sept. 23 p 931
 And Iron Ore Imports, Sept. 30 p 1004
 Bill in the Senate, July 1 p 34; July 8 p 133; July 15 p 190; July 22 p 273; July 29 p 341; Aug. 5 p 434
 Canada and the Payne Maximum Duties, Nov. 18 p 1563
 Commission Appointed, Sept. 16 p 859
 Duties Compared, Aug. 12 p 472
 Duty on Scrap Not Intended for Melting, Nov. 18 p 1569
 Error in Bonded Smelting Provision, Oct. 21 p 1249
 French Situation, Dec. 30 p 1940
 Information Requested, Nov. 4 p 1412
 Maximum Clause, Aug. 26 p 635
 Metal Schedule as Revised by the Senate, July 8 p 106
 Metal Schedule in Its Final Shape, Aug. 5 p 404
 New Philippine Law, Aug. 12 p 490
 Passage of the Bill, Aug. 5 p 410
 Provisions of Interest to the Metal Trades, Aug. 12 p 475
 Questions, Dec. 16 p 1835
 Wars Between Nations, Sept. 16 p 852
 Tata Iron & Steel Company, Ltd.:
 East Indian Iron and Steel Plant,* Sept. 23 p 926
 Taussig, W. M.:
 New Duty on Pliers and Nippers, Aug. 26 p 636
 Tax Burdens of German Industry, July 15 p 217
 Tax, Plans for Collecting the Corporation, Aug. 19 p 582
 Taxation of Corporations, Pennsylvania, Dec. 9 p 1772
 Taylor, Ellsworth M.:
 Modern Methods and the Business Specialist, July 15 p 184
 Tea Kettle, Peerless Enameled,* Aug. 19 p 601
 Tea or Coffee Ball, Screw Rim,* Oct. 7 p 1133

Teal, B. Frank:
 Improved Ball-Bearing Universal Joint,* Aug. 19 p 554
 Right Angle Line Shaft Transmission,* Sept. 2 p 688
 Technical Publicity Association, Oct. 28 p 1327; Nov. 25 p 1668
 Telephone System, Chinese Contract for an American, Aug. 12 p 477
 Telephone for Various Purposes, All Metal Crown,* Sept. 16 p 894
 Telescope, Stevens Latest,* Oct. 28 p 1370
 Telescoping Inside Gauge,* Sept. 9 p 822
 Temperatures of Tools, Tempering, Dec. 2 p 1735
 Tempering Bath, G. E. Electrically Heated Oil,* Oct. 28 p 1311
 Tempering Temperatures of Tools, Dec. 2 p 1735
 Temperley Conveyor for Loading Vessels,* Aug. 19 p 552
 Tennessee Coal, Iron & Railroad Company:
 Hoisting Plant at Ensley Blast Furnace No. 3,* Sept. 2 p 704
 Large Plans of the,* Sept. 30 p 998
 Tennis Court for Employees, July 1 p 63
 Test Bars, Report on Cast Iron, Dec. 30 p 1934
 Test of Road Wear by Automobile Traffic, Accelerated, July 15 p 186
 Testing Apparatus, Olsen Motor Driven Wire,* July 29 p 329
 Testing Congress in 1912, International, Sept. 30 p 997
 Testing Materials, International Society for—Copenhagen Meeting, Sept. 23 p 922
 Testing Revolving Parts, Machine for,* Dec. 16 p 1836
 Testing Society's Meeting, July 1 p 37
 Testing, Stevens-Duryea Auto Engine,* Sept. 23 p 903
 Tests:
 Brown & Sharpe Miller, July 15 p 176
 Bureau of Standards to Supervise Steel Rail, Aug. 19 p 560
 Cyclone Special Steel, July 8 p 127
 Gas Producer, Nov. 11 p 1497
 Illinois Coal, Nov. 11 p 1497
 Ingots, Notes on,* July 8 p 90
 Texas Iron Ore Developments, Oct. 7 p 1106
 Texas to Go Out of Iron Business, State of, Dec. 16 p 1839
 Thallner, Otto:
 Electric Refining of Steel, Nov. 4 p 1400
 Thanksgiving, New Range for, Nov. 18 p 1609
 Thompson Automatic Tapping Chuck,* Nov. 18 p 1562
 Thompson, David A.:
 Adirondack Ore Deposit History, Oct. 21 p 1248
 Thompson Suction Gas Producer,* Aug. 12 p 478
 Tidewater Steel Works Sold, Sept. 16 p 869
 Tie Company, International Steel, Nov. 4 p 1408
 Tile Roofing for Factory Use, New, Aug. 12 p 479
 Tilted Turret Screw Machine, No. 1,* Dec. 2 p 1706
 Time Saving in Shop Operations, Sept. 2 p 707
 Tin Cans, Manufacture of,* Sept. 2 p 681
 Tin, Impure, and Defective Solder, Dec. 2 p 1731
 Tinners' Snips, Hold-Fast,* Aug. 19 p 600
 Tin Plate and Sheet Situation, July 8 p 146
 Tin Plate Free of Canada's Dumping Duty, July 29 p 338
 Tin Production in 1908, Aug. 26 p 653
 Titaniferous Iron Ore Smelting at Bethlehem, Oct. 21 p 1223
 Titaniferous Iron Ore to be Utilized at Spokane, Dec. 9 p 1777
 Titaniferous Ore in Puddling and Blast Furnaces, Oct. 21 p 1223

Titanium on Steel, Effect of, Dec. 9 p 1790
 Titanium Steel Rails, Nine Months' Test of,* Aug. 5 p 394
 Titusville Gas Engines,* Dec. 16 p 1817
 Toaster-Stove, Westinghouse Electric,* July 1 p 75
 Toe Clamp Skate, Improved Nasco,* July 1 p 78
 Toledo Electric Welding Machines,* Sept. 2 p 690
 Toledo Presses, Large,* Dec. 30 p 1926
 Tolhurst Machine Works:
 Polishing and Drying by Hot Air,* Oct. 28 p 1322
 Tolman, Dr. William H.:
 Prevention of Accidents in a New Mexican Colliery, July 15 p 199
 Tongs, Ice, Double Jointed, Ely's, Oct. 21 p 1294
 Tool Case, Saws,* Aug. 19 p 587
 Tool Chests, Carpenters' Portable,* Aug. 5 p 454
 Tool Holder, Brewer Multiple,* Sept. 9 p 777
 Tool Makers and Foundry Contracts, Cincinnati, Sept. 30 p 1005
 Tool Steel on Specification, Buying Carbon, Aug. 12 p 483
 Tool Steel Specifications for the United States Navy, Aug. 12 p 480
 Tools, Showcase for,* Oct. 7 p 1124
 Tooth, Chisel Inserted, Improved Perfection,* Aug. 19 p 600
 Torrington Company, Annual Report, Nov. 25 p 1652
 Tower Gas Engine, Oct. 7 p 1081
 Towne, Henry R.:
 The Outlook, July 22 p 299
 Welfare of Employees, Dec. 16 p 1819
 Toys, Cast Iron and Steel, Arcade,* Aug. 26 p 673
 Trade Exhibit, Wm. De Pree Company, Nov. 25 p 1684
 Trade Journals, Exchanging, Merchants, Aug. 26 p 664
 Trade Schools in Reformatory Institutions, Oct. 14 p 1167
 Trademark, Paxton & Gallagher Company's,* Sept. 30 p 1032
 Train, Heaviest Freight, Ever Hauled by One Locomotive, July 8 p 151
 Training in Small Towns, Industrial, Sept. 9 p 782
 Transformers, Westinghouse Type C Three-Phase,* Dec. 9 p 1770
 Transmission, Right Angle Line Shaft,* Sept. 2 p 688
 Transom Lifter, Payson Simplex, Oct. 14 p 1215
 Transportation Bureaus, Freight, Oct. 28 p 1354
 Transportation, Freight, Economy in, Nov. 4 p 1443
 Transvaal Power Utilization, Sept. 2 p 693
 Trays, Display,* Nov. 25 p 1682
 Treadwell Construction Company, Aug. 5 p 401
 Treated Steel for High Service,* Nov. 25 p 1632
 Tribute to David Williams,* Oct. 7 p 1066
 Trimmer:
 Coldwell Lawn,* Oct. 21 p 1294
 Utica Improved Lawn, Oct. 21 p 1294
 Wall Paper, Motor Driven, Oct. 21 p 1295
 Trowels, Brick and Plastering, Sept. 30 p 1044
 Truck and Bag Holder, E-Z Combination,* Sept. 9 p 822
 Truck:
 Belting, Special,* July 29 p 373
 Oil Barrel,* Nov. 11 p 1538
 Tschentscher, R.:
 Electric Power Problems in Steel Works, Sept. 9 p 764
 Tube Plant, New Structural, Aug. 19 p 565
 Tuberculosis, Self-Help in Fighting, Aug. 19 p 557
 Tumbling Barrel, Baird Double Tilting,* July 1 p 15
 Tungsten Ores of Canada, Sept. 2 p 715
 Tungsten Lamps, New 200-250-Volt,* Aug. 5 p 455

Tunnels, Pennsylvania-Hudson, July 15 p 217
 Turbine:
 Bliss Steam,* July 29 p 324
 Industry Assuming Large Proportions, July 15 p 195
 Marine Steam Reducing Gear, Sept. 16 p 854
 Melville-Macalpine Reducing Gear,* Dec. 9 p 1766
 Pelton-Francis Installation at Schaghticoke, N. Y.,* July 15 p 192
 The Damaged Salem, July 15 p 203
 Triumph for the Marine, Nov. 18 p 1559
 Turning and Boring Mills, Colburn New Model,* Dec. 30 p 1919

U.

Unctuous Acheson Graphite,* July 15 p 198
 Underhill, Clinch & Co.'s New Location, Sept. 23 p 958
 Unemployed, National Government and the, Nov. 4 p 1388
 Union Hardware Company, Oct. 14 p 1213
 Union Metallic Cartridge Company's New Shot Tower, Sept. 16 p 886
 Union, Semi-Centennial of a Militant, Aug. 12 p 487
 United Engineering & Foundry Company:
 Modern Steel Roll Foundry, Aug. 19 p 562
 Rolling Mill Contracts, Sept. 23 p 915
 United Shoe Machinery Company:
 Industrial Education at Beverly, Mass., Dec. 2 p 1725
 United States Brake Shoe Company, Oct. 21 p 1248
 United States Cast Iron Pipe & Foundry Company, Annual Report, July 1 p 51
 United States Metallic Packing Company:
 Indestructible Oil Cup,* Sept. 16 p 845
 United States Rail Company Succeeds Maryland Rail Company, Oct. 21 p 1267
 United States Steel Corporation:
 Another Addition to Gary, July 8 p 145
 Building an Industrial City,* July 1 p 1
 Burt Oil Filters at Gary,* Sept. 9 p 767
 Business of 1909 and Its Distribution, Aug. 5 p 412
 Earnings and New Work, Nov. 4 p 1406
 Employees' Bonus and Stock Subscription, Dec. 23 p 1910
 Fawcett Axle Lathes for Gary Works, Oct. 14 p 1154
 Gas and Electric Power for New Birmingham Wire Plant, Nov. 25 p 1650
 Indiana Steel Company's Billet Mill,* Oct. 21 p 1226
 Koppers By-Product Coke Ovens for Gary, July 1 p 29
 Large Outlay in the Birmingham District, Dec. 30 p 1955
 New Construction at Gary Works, Aug. 12 p 488
 New Pig Iron Production Record, Sept. 2 p 729
 Production Records in October, Nov. 18 p 1571
 Progress at Gary Works, Nov. 18 p 1571
 Quarterly Earnings, July 29 p 336;
 Oct. 28 p 1329
 Share of Total Production of Iron and Steel in 1908, Sept. 23 p 925
 United States Steel Mixer Company:
 Cornwall Portable Concrete Mixer,* Sept. 16 p 841
 Universal Horizontal Boring Machine, No. 2½,* Sept. 2 p 692
 Upson Nut Company Orders Its Steel Mill Equipment, Oct. 7 p 1091

Usina, D. A.:
 Copyright in Drawings of a Technical Character, July 8 p 122
 Utah, Industrial Growth in Southern, Sept. 23 p 934

V.

Vac-Jac Cooker,* Sept. 9 p 820
 Valedictory of David Williams, Sept. 23 p 930
 Value of Coal in Terms of the Ashes,* Nov. 4 p 1401
 Valve:
 Anderson Pressure Reducing,* Aug. 19 p 553
 Chapman, Oct. 7 p 1068
 Chapman Electrically Operated,* Nov. 18 p 1547
 Golden Cushioned Triple-Acting Non-return,* July 8 p 113
 Lunkenheimer Oil-Air,* July 8 p 89
 Valve Grinding Compound, Carborundum, Nov. 11 p 1535
 Valves, Cost of, Boston Water Department, Aug. 26 p 611
 Van Buren Excavator,* Oct. 7 p 1055
 Van Doren Lubricator,* Aug. 26 p 617
 Van Langendonck, C.:
 Suspension Railways in German Iron Works,* Aug. 26 p 609
 Vanadium Industry, J. Kent Smith and the American, Aug. 12 p 485
 Vanadium Steels, Quality Figures in, July 29 p 339
 Vatudrip Rust Preventive, July 15 p 187
 Venice, Cal., High Pressure Salt Water System, Oct. 7 p 1063
 Ventilation, Compulsory Factory, July 8 p 94
 Ventilating Sash Lock, Pittsburgh,* Aug. 19 p 598
 Ventilator, New Rotatable Cowl,* Sept. 9 p 821
 Vernaz Milling File, Elliott Cresson Medal for the, Sept. 30 p 997
 Vessel, New Swedish Ore,* Oct. 7 p 1058
 Vessels, Conveyor Bridge for Loading,* Aug. 19 p 552
 Virginia Iron, Coal & Coke Company, Annual Report, Sept. 30 p 1009
 Virginia the Oldest Coal Producer, Aug. 26 p 613
 Virginian Railway's Coal Handling Plant,* July 22 p 247
 Von Bültzingslöwen, Bruno:
 Aeromobile, a Novel Heavier-Than-Air Machine,* Aug. 26 p 612
 Von Lengerke & Detmold's New Store, July 29 p 366
 Von Maltitz, E.:
 Effect of Titanium on Steel, Dec. 9 p 1790
 Vulcan Electric Shovels,* Aug. 5 p 396

W.

Wages:
 Advance in Eastern Blast Furnace, Oct. 7 p 1090
 German Iron Workers', Aug. 26 p 611
 Pennsylvania Railroad Company's List, July 1 p 51
 Western Bar Iron Association Signs Amalgamated Scale, July 1 p 50
 Wagner Quick-Folding Go-Carts, Nov. 4 p 1455
 Wagon, Coaster, Badger, July 8 p 164
 Wagon, Express, Iron,* Aug. 5 p 456
 Wagon Runners, Detachable,* Nov. 11 p 1535
 Wais Patent Universal Shear,* July 29 p 327
 Wall Paper Trimmers, Motor Driven, Oct. 21 p 1295
 Walls, Bray & Co.:
 Bill Sand Mixer and Sifting Machine,* Aug. 26 p 630
 Waltham Automatic Staff Turning Machine,* Nov. 4 p 1391
 Ware, Flat, Florette Pattern,* Aug. 12 p 525
 Washboard Rack,* Nov. 25 p 1682
 Washboard, Sani-Steel,* Oct. 28 p 1369
 Washburn Drafting Table,* Oct. 21 p 1238

Washington Coal & Coke Company:
 Connellsville Electric Mine Hoist,* Sept. 9 p 780
 Connellsville 500-Hp. Mine Hoist, Sept. 16 p 849
 Washing and Wringing Machine, Automatic,* July 8 p 165
 Washing Machine Steel Armed Dollies,* July 1 p 76
 Washing Machine, Steel King Ball-Bearing,* Oct. 7 p 1132
 Washington Steel & Iron Company:
 Titaniferous Iron Ore to Be Utilized at Spokane, Dec. 9 p 1777
 Water Ballast Lawn and Garden Roller,* Aug. 5 p 455
 Water Cooler and Filter, Sucro Pure,* Aug. 19 p 600
 Water Heating and Softening,* Oct. 28 p 1320
 Water Works Equipment Company:
 Portable Gasoline Engine Pumping Outfit,* Aug. 5 p 389
 Waterbury Farrel Cold Header, Powerful,* Dec. 16 p 1822
 Waterways, Growing Interest in, Dec. 9 p 1785
 Waterways Needed, Interior, Oct. 14 p 1168
 Watson-Stillman Hydraulic Shears,* Aug. 19 p 535
 Weather Strips, American and Gould,* Sept. 30 p 1045
 Weiffenback and Olsen:
 Experiments on the Case Hardening of Steel by Gases, July 8 p 120
 Weights, Net, in Paints, Oct. 28 p 1368
 Weld, C. M.:
 Residual Brown Iron Ores of Cuba,* Aug. 26 p 614
 Welding and Cutting Metals, Oxhydric Process of,* Nov. 11 p 1467
 Welding, Electric, in Steel Goods, Sept. 2 p 748
 Welding Equipment, New Autogenous,* July 15 p 188
 Welding Machines, Toledo Electric,* Sept. 2 p 690
 Welfare Work, Oct. 7 p 1114
 Welfare Work in Iron Mining, Oct. 14 p 1160
 Well Driller, Electrically Driven,* July 22 p 250
 Wellman-Seaver-Morgan Company:
 Difficult Steel Casting Job,* Sept. 23 p 921
 Virginian Railway's Coal Handling Plant,* July 22 p 247
 Wells Polishing and Finishing Lathe, New,* Dec. 2 p 1705
 Wells Screw Machine Wire Feed, New,* Nov. 25 p 1641
 Welsh Tin Plate Makers and Canada's Market, Sept. 9 p 803
 Wemlinger Steel Sheet Piling,* Sept. 9 p 772
 West, Thomas D.:
 New Process of Making Chilled Car Wheels,* Aug. 5 p 390
 Western Bar Iron Association Signs Amalgamated Scale, July 1 p 50
 Western Drydock & Shipbuilding Company, Aug. 5 p 434
 Western Electric Company:
 Chinese Contract for an American Telephone System, Aug. 12 p 477
 Patent Specification Library Given to the Electrical Engineers, Sept. 9 p 784
 Western Tin Plate & Sheet Company's Affairs, Sept. 23 p 929
 Westinghouse Air Brake Company, Annual Report, Sept. 30 p 982
 Westinghouse Electric & Mfg. Company:
 Annual Report, July 29 p 337
 Electric Business, July 15 p 217
 Freight Locomotive,* Sept. 30 p 988
 New Repair Department, Dec. 23 p 1885
 Type C Three-Phase Transformers,* Dec. 9 p 1770
 Westinghouse Machine Company:
 Gas Producer in a Double Role, Sept. 9 p 780
 Leblanc Condenser,* Aug. 5 p 383

- Westinghouse Machine Company:
 Marine Steam Turbine Reducing Gear,
 Sept. 16 p 854
 Melville-Macalpine Steam Turbine Re-
 ducing Gear,* Dec. 9 p 1766
 Wheeler Dry Tube Condenser,* Oct. 7
 p 1072
 Wheeler Rain Type Jet Condenser,* Nov.
 4 p 1396
 Wheels, New Process of Making Chilled
 Car,* Aug. 5 p 390
 Wheels, Specifications for Cast Iron
 Car, Aug. 5 p 414
 Whip, Cream, Egg Beater and Mayon-
 naise Mixer, Holt's Improved Do-
 ver,*
 White, J. G., & Co.:
 At Work Around the World, Oct. 28 p
 1322
 White Lead, Manufacturers of, Selling
 Direct to Consumers, July 1 p 64
 Whiting Portable Jib Crane,* Aug. 5 p
 401
 Whitlock Company, President Hyde
 Leaves the, Dec. 30 p 1933
 Wickhorst, M. H.:
 Interesting Driving Axle Failure,*
 July 8 p 123
 Wickwire Furnace at Buffalo, New,
 Oct. 21 p 1233
 Wilder Metal Coating & Mfg. Company:
 Aluminum Coated Sheets in a Coal
 Tipple, Nov. 4 p 1410
 Wiley, Brent:
 Electrically Driven Merchant Mill,*
 July 1 p 12
 Wilkes Rolling Mill Company to Manu-
 facture Iron Tin Plate, Sept. 9 p
 787
 Willey Machine Company:
 Sensitive Drill, Motor Driven,* Sept.
 9 p 781
 Simple Electric Hand Drill No. 0,*
 July 15 p 183
 Williams, David:
 Tribute to,* Oct. 7 p 1066
 Valedictory, Sept. 23 p 930
 Williams, J. H. & Co.'s New Catalogue,
 July 8 p 156
 Wilmarth & Morman Company:
 Double New Yankee Drill Grinder,*
 Dec. 2 p 1717
 Machinery Resale Prices, Dec. 16 p
 1845
 Wilson's, John, Butcher Knives, July 8
 p 164
 Windmill Force Pump with Ratchet
 Head,* Nov. 18 p 1614
 Window Display, Hardware:
 Airship and Fine Tools,* Sept. 30 p
 1035
 Automobile,* Sept. 16 p 890
 Christmas,* Nov. 4 p 1445; Nov. 11
 p 1527; Nov. 18 p 1607
 Window Display, Hardware:
 Corn Cutting,* Oct. 28 p 1361
 Cutlery,* July 1 p 65
 Cutlery,* July 29 p 365
 Elks' Carnival Week,* Sept. 2 p 744
 Fall Business in Stoves and Ranges.
 Working up,* Oct. 7 p 1122
 Fancy Ware,* July 22 p 303
 Hallowe'en,* Oct. 28 p 1361
 Labor Day,* Aug. 26 p 664
 Ladies' Furnishings,* Aug. 5 p 445
 Liberty or Independence Bell,* July
 29 p 369
 Millinery,* Nov. 4 p 1444
 Nicked Ware,* Aug. 12 p 517
 Range Bidding Contest,* Nov. 18 p
 1603
 Recessed Diamond,* Aug. 26 p 665
 Santa Claus,* Nov. 18 p 1607
 Santa Claus Air Ship,* Nov. 25 p
 1680
 Southern California,* July 8 p 159
 Thanksgiving,* Nov. 11 p 1526
 Value of Show Windows, July 1 p 72
 What's in a Name?,* Nov. 18 p 1603
 Window Fastener, Security,* July 22 p
 309
 Window Screen Frame, Superior,* Oct.
 28 p 1369
 Window Screen Hanger,* July 8 p 166
 Wind Shield, I. & M.,* July 29 p 372
 Wire, Barb, Early History of, Sept. 16
 p 889
 Wire, Barb, Two-Point, American Glid-
 den, Nov. 18 p 1611
 Wire Cloth Display Rack, Bowser,*
 July 1 p 77
 Wire Cloth Rack, Ashby's Improved,*
 Nov. 4 p 1456
 Wire Feed, New Wells Screw Machine,*
 Nov. 25 p 1641
 Wire Gauge Slide, Youngstown, July 15
 p 222
 Wire Goods Company Expands, Dec. 16
 p 1821
 Wire, Pinion, Aug. 19 p 599
 Wire Plant Near Ensley, Ala., New
 \$3,000,000, Nov. 18 p 1590
 Wire Project, Large, July 29 p 354
 Wire Reel,* Nov. 25 p 1682
 Wire Stranding Machine, New English
 Type,* Sept. 6 p 762
 Wire Testing Apparatus, Olsen Motor
 Driven,* July 29 p 329
 Wire Trade, Cambria Steel Company to
 Enter, Dec. 30 p 1955
 Wisconsin Hardware Dealers' Mutual
 Fire Insurance Company, Nov. 11
 p 1530
 Witherbee, Sherman & Co.:
 Record Iron Ore Output at Port
 Henry, Oct. 7 p 1085
 Wolfe, D. S.:
 Workmen's Accident Compensation,
 Aug. 5 p 415
 Wood Turret Machine Company:
 Improved Tilted Turret Screw Ma-
 chine,* July 1 p 18
 No. 1 Tilted Turret Screw Machine,*
 Dec. 2 p 1706
 Plant Description,* July 8 p 87
 Wood Worker, Crescent Variety,* July
 22 p 264
 Worcester Metal Trades Outing, July 15
 p 216
 Working Head, Myers Bulldozer Power,*
 Oct. 21 p 1294
 Workmen's Accident Compensation,
 Aug. 5 p 415
 Workmen's Compensation Laws, Oct. 28
 p 1312
 World, At Work Around the, Oct. 28 p
 1322
 Wrench:
 Bolt and Pipe, R. & P. Company,*
 Nov. 4 p 1455
 Hawkeye, July 15 p 237
 Ronson,* Nov. 18 p 1615
 Wringer, Lovell's Guarantee,* Aug. 5
 p 455
 Wringer, Mop, White Family Size, July
 15 p 237
 Wringing and Washing Machine, Auto-
 matic,* July 8 p 165
 Wyoming, Great Irrigation Project in,
 Nov. 4 p 1399
 Y.
 Yale & Towne Mfg. Company:
 Forty-Ton Triplex Chain Block,*
 Sept. 9 p 777
 Welfare of Employees, Dec. 16 p 1819
 Yankee Drill Grinder, Double New,*
 Dec. 2 p 1717
 Yankee No. 1 Surface Grinder,* Nov. 4
 p 1889
 Yawger, Edwin:
 Westinghouse-Leblanc Condenser,*
 Aug. 5 p 383
 Yearsley, E. W.:
 Rolling Mill Motors, July 8 p 111
 York, James E.:
 Rail Rolling Methods,* Sept. 16 p 838
 Youngstown Electric Industrial Locomo-
 tive,* Oct. 28 p 1319
 Youngstown Foundry & Machine Com-
 pany, Aug. 19 p 576
 Youngstown Sheet & Tube Company:
 New Blast Furnace at Youngstown,
 Aug. 19 p 581; Aug. 26 p 658;
 Sept. 23 p 934
 Tubular Goods Code, Nov. 18 p 1561
 Wire Gauge Slide, July 15 p 222
 Z.
 Zeppelin's Steel Belts, Oct. 7 p 1078

